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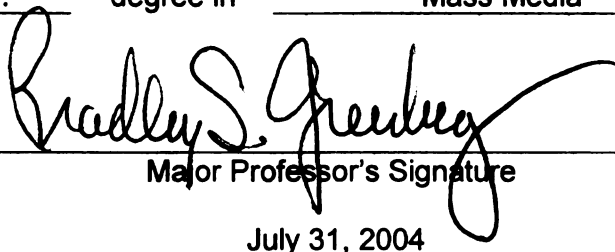
LONELINESS, SOLITUDE, AND THE ROLE OF  
VIEWING INVOLVEMENT IN PARA-SOCIAL  
INTERACTION

presented by

Mark Gregory Woods

has been accepted towards fulfillment  
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Ph. D. degree in Mass Media



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LONELINESS, SOLITUDE, AND THE ROLE OF VIEWING INVOLVEMENT IN  
PARA-SOCIAL INTERACTION

By

Mark Gregory Woods

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## **ABSTRACT**

### **LONELINESS, SOLITUDE, AND THE ROLE OF VIEWING INVOLVEMENT IN PARA-SOCIAL INTERACTION**

By

Mark Gregory Woods

Research has often tried to link loneliness to para-social interaction and more passive viewing (less intention, attention, and selection). Para-social activity and loneliness have been linked with reliance on television (viewing), but no relationship has been found between loneliness and para-social activity. Furthermore, loneliness research has often measured the chronicity of loneliness, but has not adequately made the distinction between being alone and feeling lonely. There exists the possibility that one is alone, but feels no sense of loneliness, and the possibility that one can be with a group of people and still feel lonely. Further, loneliness has been treated as a stable trait rather than a state that is given to fluctuations due to circumstances.

A path model was proposed where loneliness type drives the needs perceived by individuals, which drives levels of viewing involvement, which drives levels of para-social interaction. That is, loneliness type dictates the type of gratifications sought (companionship, escapism, passing time, or social interaction). Companionship and social interaction were believed to be positively correlated with viewing involvement, and viewing involvement positively correlated with para-social interaction. From an original sample of 427 respondents, 279 female respondents from a small college and a large community college in Metropolitan Detroit were retained for testing. Results indicated that there were differences in the gratifications sought among individuals who

were *Classically Lonely*, *Lonely with Others*, *Loners*, and *Non-lonely* when seeking companionship, but not for escapism, social interaction, or passing time. *Companionship* and *social interaction* were significantly correlated with viewing involvement, and there was a strong link between para-social interaction and involvement. The path model was not an acceptable fit, however, and there was little support for the necessity to create a typology from solitude and loneliness. Implications and future direction are discussed.



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## **CHAPTER 1**

### **Introduction**

#### **Introduction to Loneliness and Solitude**

What is the nature of loneliness? Is there a distinction between being alone and feeling lonely? Can conditions exist where either physical state or emotional state is in seeming conflict? That is, can one feel lonely even in the presence of others? Can someone be alone but not feel lonely? How do these conditions affect television viewing? What uses of television become more prevalent given a condition of loneliness? How does a given use of television affect involvement level with television (i.e. television characters)?

From the loneliness research, there seems to be an assumption that the chronically lonely individual does not seek or cannot obtain gratification from *social interaction*. The chronically lonely are seen as poorly socialized individuals who use television as a form of *escapism*. The choice in content seems driven by a more “ritualized” (Rubin 1993) form of viewing, wherein the viewer watches with “less intention, selection, and attention” (p. 99). The viewer is said to have a more passive orientation (i.e. less active).

The problems with this idea are that the lonely viewer is assumed to be watching in isolation from others and that there is a persistent condition of loneliness. Chronically lonely people are not always lonely and are not necessarily alone. Loneliness, as defined by Bell & Daly (1985), is a form of “psychological distress” (p. 122) evidenced by a need for others. It is the “perceived gap between a person’s desired and achieved social relationships” (p. 122). Loneliness has a temporal characteristic, that is, the duration of loneliness creates either transitory loneliness, a

form of “situational” loneliness usually caused by events such as moving to a new location (Canary & Spitzberg, 1993, p. 803), or chronic loneliness.

Lonely people are those who feel a heightened sense of loneliness or social isolation. In addition, they feel that they have experienced this state for an extended period of time. To place it along the lines of uses & gratifications, these people have a need for social activity (*companionship*). Those who are alone and feel this need but do not have others to fulfill it (what Maslow (1983) called a need for belongingness (p. 20)), may seek television for that purpose.

However, this is a limited cross-section of individuals. Among those who are not counted are those who are alone, but do not feel a need for belonging, and those with a high need for belonging who have *companionship*. As Zakahi & Duran (1982) noted, “the presence of others does not guarantee a lack of loneliness” (p. 204). Likewise, in regard to the former, Hosman (1991) found little correlation between the need for privacy and loneliness ( $r=.20$ ,  $p<.01$ ). This would suggest that someone who prefers to be alone will not feel a sense of loneliness.

As indicated by Bell & Daly (1985) and Canary & Spitzberg (1993), loneliness is measured along the dimension of time. Transitory or situational loneliness is a short-term form of loneliness, while chronic loneliness is a result of more long-term loneliness. Interestingly, Bell & Daly (1985) stated that transitory loneliness followed events such as “divorce, death of a loved one, or mobility” (p. 122), which really speaks to more physical states, that is, aloneness (solitude). This is not to say that such events would not create a heightened sense of loneliness, but the critical element is the physical separation or isolation from others. This suggests an entirely new category.

Thus, there are four sets of viewers with potentially different motivations for watching television (Figure 1.1). There are now the lonely and non-lonely, and the alone and non-alone. This idea now considers individuals' loneliness along two dimensions: physical state and perceptual state.

From this, four very distinct categories of individuals emerge:

1. *Classically Lonely*—the condition of being alone and feeling socially isolated. This is categorized by a high degree of solitude and a high degree of perceived social isolation (loneliness).
2. *Lonely with Others*—the condition of being with others in social situations, but not feeling a sense of fulfillment socially. This is seen as a low degree of solitude and a high degree of loneliness.
3. *Loners*—the condition of having a high degree of solitude, but no perceived sense of loneliness. This is a situation where social contact is not necessarily preferred.
4. *Non-lonely*—the condition of not feeling lonely and of being in proximity of others.

These categories create new distinctions among individuals—states where loneliness and solitude are independent. People can be alone and not feel a sense of loneliness. People can feel lonely among others when they do not identify with the others. Entering freshmen, for example, may not identify with fellow classmates or roommates. They long to gain that sense of familiarity that comes from identification with others. In this light, it would not be surprising that they would turn to that which is familiar: television. The cast of characters become the familiar faces longed to see.

**Figure 1.1 Categorization of Loneliness**

		Physical Loneliness (Solitude)	
Perceived Loneliness		ALONE	NON-ALONE
	LONELY	Classically Lonely	Lonely with Others
	NON-LONELY	Loners	Non-lonely

In this longing, what has developed is a bond with the characters—a para-social interaction, brought on or made more salient by a set of needs, such as *companionship* or *social interaction*. The viewer identifies with the characters on television, that is, they develop an “affinity... with the characters” (Rubin & McHugh, 1987, p. 279) or otherwise any “illusion of intimacy” (Hoton & Wahl, 1956, p. 217) perceived by the viewer toward the characters on television. This one-sided bond of intimacy, this para-social interaction, has been typically believed to be a function of loneliness, as noted. Given the new typology of loneliness suggested, it may be an over-generalization to say that the lonely only seek *companionship*. *Loners* may not feel the need for *social interaction* or the need for company. At best, it can be said that the type of loneliness may serve to create different needs within different people, which would impact how television affects them. But, before the end result (i.e. para-social interaction) can be assessed, it is necessary to understand the conditions that lead to it, that is, the needs or motivation for watching television, and the level of involvement with television characters.

### **Audience Activity—Gratifications Sought**

Any discussion on viewing motivation, need, or use of television starts with the activity of lonely or non-lonely viewer. The idea of activity or passivity has been one of viewers engaging in media materials. This viewing orientation would lead to different uses of media (from different needs).

Perse & Rubin (1990) suggested that there was a more passive orientation among lonely viewers (p. 48). Such an orientation led to a decreased likelihood of viewing soaps for excitement or *social interaction* (active viewing). Rather, lonely viewers tended to watch to pass the time. *Escapism*, *companionship*, and *passing time* are seen traditionally as ritualized, or “less active and [less] goal-directed” (Perse, 1986, p. 177), uses, versus more “instrumental television viewing” (Rubin, 1984, p. 73) such as *social interaction*.

However, the idea of a more passive orientation is problematic when considering the motivation to feel less lonely. While Rubin (1984) suggests the need for *companionship* as a more ritualized gratification sought, this could be as easily construed a very active orientation. A lonely person decides that feeling lonely is not desired, and calling friends is not an option, so watching a program with familiar characters fulfills the need for *companionship*. In fact, Rubin admits that ritualized and instrumental use may not be “clearly dichotomous” (p. 76). That is, these gratifications can be both instrumental and ritualized. In light of this, the decisive criterion would be attention to media materials. Ritualized viewing suggests a more passive orientation, which suggests less attention, though it is possible that a passive orientation lends itself to a more accepting, and possibly a more attentive orientation. This is critical, in

that attention lends itself to involvement with characters (personae), argued here as the key to para-social interaction.

### **The Role of Involvement**

In order for one to develop a para-social bond, one must attend to media materials. However, as noted, there are varying levels of attention. The viewer can take a more passive or active role in viewing. What exactly that implies is a level of involvement (*viewing involvement*) with the medium.

The viewer can only make bonds with someone she cares for, thinks about, and plans time to be with. It can only be that involved viewer who will develop the perceived bonds between the characters and herself. Involvement, then “reflects the participation, attention, and emotion” (Rubin, 1993, p. 102) of the viewer toward the mediated materials (or to the characters on television). Involvement, given an active orientation (i.e. an instrumental viewing of television), would lead to a perceived bond with the characters on television.

Zaichkowsky (1986) noted that involvement is a “mediating variable” (p. 4) in determining media effects, noting that a person’s “inherent value system” and the “varying situation” (p. 5) are antecedents of involvement. This value system and varying situation could certainly include needs of the given moment, such as a need for *companionship* derived from a sense of loneliness. Involvement, and ultimately para-social interaction, would now be a function of the condition of the individual (loneliness and solitude states) and the needs perceived by the individual. Thus, the type of loneliness leads to gratifications sought, which determines the level of

involvement with mediated material. Viewing involvement then leads to para-social interaction.

### **Para-Social Interaction: Developing Bonds with Televised Personae**

Horton & Wohl (1956) suggested that individuals will form para-social relationships with media personalities or characters (personae). A para-social relationship or interaction (PSI) is a perceived bond developed by the viewer toward a televised character or characters (personae). While not reciprocated, the viewer feels a sense of identification with the personae.

According to Giles (2002), there was little interest in para-social interaction until the “advent of the uses and gratifications approach” (p. 280). Viewers, being goal-oriented, seek gratification from media materials. It was only logical to assume that lonely people may find satisfaction socially through para-social interaction.

Levy (1979) continued the efforts of Horton and Wohl (1956) in developing the idea of para-social interaction. He tested the belief that increased *social interaction* will decrease para-social interaction and that increased para-social interaction (with news personae) will increase news viewing. He found a significant but weak inverse correlation between *social interaction* and para-social interaction ( $r = -.12, p < .05$ ), and no association between viewing alone or with others. He also found a slightly stronger positive correlation between viewing and para-social interaction ( $r = .22, p < .01$ ). This indicates several possibilities. It shows that the para-social activity is linked to viewing, but is not clearly linked to loneliness, again, perhaps because the concept of loneliness is not more clearly conceptualized, or that loneliness is not directly linked to para-social interaction.



Rubin, Perse, & Powell (1985) found links between loneliness and less interpersonal communication and TV reliance, and also between para-social interaction and TV reliance, but did not find a relationship between loneliness and para-social interaction. Again, this may be due to the idea that loneliness has not been more clearly differentiated between being alone and feeling lonely.

Perse & Rubin (1990) later found evidence of chronic loneliness related to less interpersonal interaction and increased passive TV use (that is, *passing time*). This leads into a discussion of audience activity. Uses and gratifications researchers have always assumed the audience to be active; audience members have the ability to recognize their needs and seek out gratification (perhaps through media use). However, Rubin (1993) identified a set of individuals who watch television with a more passive orientation. They are less goal-directed, and have little attention or selection of materials. While the introduction of the chronically lonely as passive viewer seems validated, the idea of passive viewing seems a bit problematic.

Rubin & McHugh (1987) indicated that there was a para-social relationship development path, whereby, simplified, social attraction leads to a para-social interaction, which leads to a sense of relationship importance, but found no link between exposure to TV characters and para-social interaction. This is interesting, in light of the fact that it is often assumed that lonely viewers seek *companionship* from these characters. In fact, there is evidence that this is not the reason viewers attend to media materials. Finn & Gorr (1988) looked at relationships between viewing motivations and various personality traits, including shyness, self-esteem, and loneliness. TV motivations were placed into two factors, with social compensation

(including such items as *companionship*, *passing time*, and *escapism*), and mood management (relaxation, entertainment, arousal and information motivations). While they were able to find relationships between shyness and viewing ( $r=.30$ ,  $p<.001$ ), no relationship was found between loneliness and social compensation ( $p=.09$ , *n.s.*). That is, viewers who are chronically lonely are not necessarily watching for *companionship*, *passing time*, or *escapism*.

Again, the assumption made is that the viewer is lonely and watching by herself. It is possible that there are viewers watching in this way, and it is logical to assume that lonely people would seek *companionship*, but it is not sound to assume that all people who are in the absence of others wish to be with others. Being alone is a physical state; loneliness is a psychological condition. Lonely people aren't always alone and people who are alone aren't always lonely.

What has also been assumed, according to Perse & Rubin (1989) is the idea that para-social interaction should not be considered something that poorly socialized individuals do. In fact, they believed that this is a normal consequence of viewing. The idea of non-lonely people making connections to media personae began to emerge. This idea was furthered by Canary & Spitzberg (1993) with the distinction made between chronically lonely individuals and situationally lonely individuals, that is, those who are alone by temporary circumstances (such as being away from family due to temporary work assignments). Interestingly, they found that the chronically lonely rely less on media for *escapism*, noting that chronically lonely individuals attended to media materials for surveillance (the need for information or news). As for para-social interaction, there was no difference due to loneliness chronicity.

In sum, para-social interaction has been thought to be linked to loneliness despite the rather moderate to low effects sizes (see Table 1.1). If loneliness does not drive para-social interaction, then what does? And, does loneliness have a role in this?

**Table 1.1 Research Variables of Interest**

Author	Year	Variables		value	p-value
Levy	1979	para-social interaction	social interaction	$r = -.12$	$p < .05$
Levy	1979	para-social interaction	news viewing	$r = .22$	$p < .01$
Levy	1979	para-social interaction	viewing alone or with others	$r = .02$	<i>n.s.</i>
Rubin, Perse, Powell	1985	loneliness	interpersonal communication	$r = -.44$	$p < .001$
Rubin, Perse, Powell	1985	loneliness	TV reliance	$r = .18$	$p < .001$
Rubin, Perse, Powell	1985	para-social interaction	TV reliance	$r = .15$	$p < .01$
Rubin, Perse, Powell	1985	para-social interaction	loneliness	$r = -.09$	<i>n.s.</i>
Perse, Rubin	1990	chronic loneliness	less interpersonal interaction	$X^2 = 61.16$	$p < .001$
Perse, Rubin	1990	chronic loneliness	increased passive TV use	$X^2 = 22.83$	$p < .004$
Hosman	1991	loneliness	need for privacy	$r = .20$	$p < .01$
Rubin, McHugh	1987	para-social interaction	TV exposure	$r = .12$	$p < .05$
Rubin, McHugh	1987	TV exposure	attraction toward characters (social, physical, task)	$r = .01$ $r = .05$ $r = .05$	<i>n.s.</i> <i>n.s.</i> <i>n.s.</i>
Rubin, McHugh	1987	para-social interaction	social attraction	$r = .35$	$p < .001$
Rubin, McHugh	1987	attraction (social, physical, task)	relationship importance	$r = .03$ $r = .11$ $r = .09$	<i>n.s.</i> $p < .05$ <i>n.s.</i>
Rubin, McHugh	1987	para-social interaction	relationship importance	$r = .52$	$p < .001$
Finn, Gorr	1988	shyness	social compensation	$r = .30$	$p < .001$
Finn, Gorr	1988	loneliness	social compensation	$r = .09$	<i>n.s.</i>

### **Loneliness and Solitude as a Situation Rather Than Condition**

What has not really been considered to this point is the idea that loneliness is not necessarily a stable trait or condition. As noted, the idea of being alone can be either desired or not given different situations. Gratifications researchers indicate that

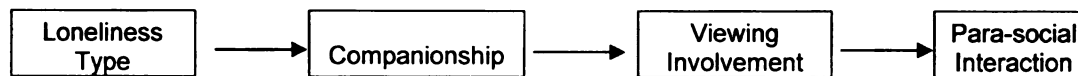
individuals watch television for a variety of reasons—sometimes conflicting reasons (e.g. escape from others, companionship). Given that, we must realize that loneliness fluctuates, depending on the need for companionship, and the ability to obtain such gratification. Someone who is lonely and alone (defined as the *Classically Lonely*) would feel a heightened need for companionship, but, having no one around, would likely become very involved with televised personae, and develop stronger bonds. Someone who is alone, but not feeling lonely (*Loner*), may not feel a need for escapism or companionship, and therefore, will not become as involved with personae, and will not develop bonds with them.

Thus, uses of television as a variable must be considered. It cannot be assumed that people are always lonely and that loneliness itself leads to para-social interaction. Rather, it is that person who perceives a need for companionship that is more likely to seek it out. This same person is more likely to do so by means of television if there aren't any others around.

From this, a simple path model (Figure 1.2) is developed that broadly explains loneliness and its relationship to para-social interaction. The loneliness type (a function of perceived loneliness and solitude) drives the gratifications one may seek from television, specifically *companionship*, *escapism*, *passing time*, and *social interaction* adapted from Greenberg (1974) and Rubin (1979, 1981). Lonely people would seemingly crave companionship more than *Non-lonely* people, and be more likely to turn to television to gratify that need. *Non-lonely* people would more likely seek television to pass the time, or perhaps as a vehicle to spend time with friends.

Such assertions need to be more carefully examined. The following paragraphs look more closely at each link along the path model.

**Figure 1.2 Path Model of Effects**



Note: arrows indicate positive relationship between constructs.

Looking at the individual links, the type of loneliness a person experiences (loneliness and solitude levels) will determine the types of needs one would have. It would be reasonable to expect that those with a heightened sense of loneliness and solitude (defined here as the *Classically Lonely*) would have a need for companionship, and use television to fill that need:

*H1: Classically Lonely individuals will have a heightened need for Companionship from television versus the other groups (i.e. Loners, Lonely with Others, and Non-lonely).*

Those who experience loneliness, but are around others will not necessarily feel the need for companionship, but rather seek an escape from their current situation. The presence of these others is not satisfying them, and the alternative is to escape that through television:

*H2: "Lonely with Others" individuals will use television as an escape more than other groups (i.e. Classically Lonely, Loners, and Non-lonely).*

Those who do not feel a sense of loneliness, regardless of their state of solitude, will more likely have less directed uses of television. Their present situation does not necessarily lend itself to dissatisfaction, and any use of media will neither be to escape a particular situation, nor to find comfort for any perceived inadequacies.

Television essentially becomes a means by which time is simply passed:

*H3: Loner individuals will use television to pass time more than other groups (Classically Lonely, "Lonely with Others," and Non-lonely).*

For individuals who are not lonely and also not in the presence of others (i.e. low level of loneliness and high level of solitude, or *Loners*), television becomes a vehicle by which an experience is shared. It becomes a means by which individuals can gather together for the sake of social interaction:

*H4: Non-lonely individuals will use television for Social Interaction more than other groups (i.e. Classically Lonely, "Lonely with Others," and Loners).*

These needs will drive the level of viewing involvement. Traditionally active uses will increase the level of *viewing involvement*, while the more ritualized viewing (escape, passing time) will not be related to viewing involvement. The individual who watches television for the expressed purpose of gratifying a need for companionship is engaged in a very active pursuit and use of television. This person is more likely to become more involved in viewing.

In sum, the type of media use is more likely to be the result of experiences and perceptions one has in a given time frame. The needs one has are shaped by circumstances (in this case, perceived feelings of loneliness and proximity to others), and television provides gratification. The lonely (*Classically Lonely*) will seek *companionship*; *Lonely with Others* will look to escape; the *Loners* will pass the time; *Non-lonely* will use television as a means to spend time with others. Table 1.2 provides a visual outline of H1-H4.

**Table 1.2 Loneliness Type Most Likely to Use Television for Specific Need**

	<b>Loneliness Type</b>			
<b>Need</b>	<b>Classically Lonely</b>	<b>Lonely With Others</b>	<b>Loners</b>	<b>Non-Lonely</b>
Companionship	x			
Escapism		x		
Pass Time			x	
Social Interaction				x

This model indicates that the specific needs are the result of the condition of the individual, that is, how lonely they feel and their level of contact with others (solitude). The condition of loneliness and solitude create four distinct categories, from which certain needs will take on greater importance. This is important to note, as the specific needs will lead to greater involvement. These particular needs will be the more active needs: *companionship* and *social interaction*:

*H5: As use for companionship increases, the level of viewing involvement increases.*

Seeking *companionship* is an active process. The viewer feels lonely, and is, in fact, not around others (*Classically Lonely*). This person will seek others in any form, including by proxy (use of television). By the same measure, those engaged in television use for social interaction are using televised programs for the purpose of interaction with others in their environment; the act of viewing facilitates discussion. The actions of televised personae will lead to discussions by others regarding these actions. This increases the level of involvement:

*H6: As use for social interaction increases, the level of viewing involvement increases.*

These are rather important links to note, as both the *Non-lonely* and *Classically Lonely* both drive involvement. This is an indication that very different motivations can lead to the same effect, in this case, greater involvement, and ultimately, para-social interaction. This would also explain how there is seemingly no correlation between loneliness and para-social interaction: both *Non-lonely* and *Classically Lonely* individuals will identify with televised personae given higher levels of involvement. Again, someone watching to simply pass the time will feel no particular attachment to televised personae, while someone with a need for companionship will more likely develop bonds with television characters. The discussion of characters and their situations that increases one's involvement serves to blur the boundaries of social and para-social interaction. The characters and events on television, while clearly mediated, are assigned greater importance, and increase the bonds perceived by the viewer toward the televised personae.

*H7: Viewing involvement will be positively correlated with para-social interaction.*

From this logic, we can see that the more active uses will drive viewing involvement. We can also see that the *Classically Lonely* and *Non-lonely* individuals will be the more active viewers. With these groups separated and accounted for by virtue of solitude, we can see that para-social interaction is less likely in *Lonely with Others* and *Loners*.

In sum, we see the path model developing (Figure 1.3). It should be noted here that no links between *escapism* and *passing time* are indicated in the path model. It has been argued that a passive orientation (as evidenced by the ritualistic gratifications

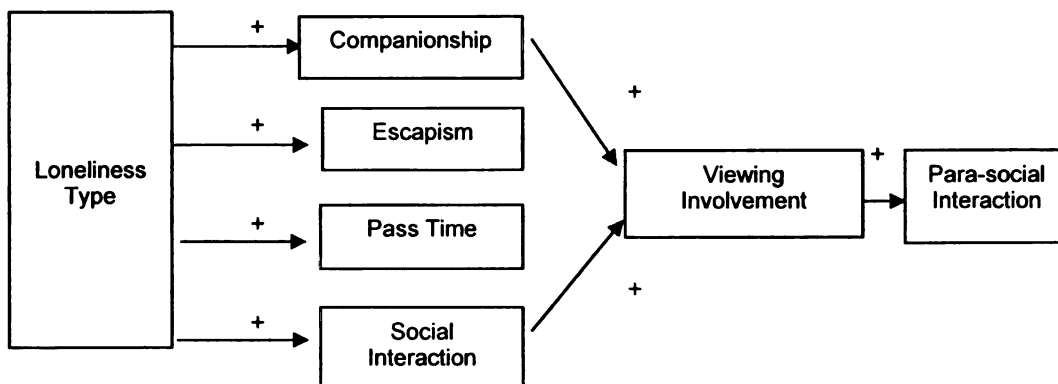


sought) is characterized by less attention to content. It is argued here that such gratifications, then, would not lead to increased involvement. That is, these gratifications should be unrelated to viewing involvement.

*H8: Loneliness type drives the type of gratifications sought, which (as active gratifications) then drives involvement, which ultimately leads to para-social interaction.*

Figure 1.3 shows the proposed links between the types of loneliness and the gratification sought. Of these gratifications sought, *companionship* and *social interaction* are shown to be strongly (and positively) linked to viewing involvement, which is then linked to para-social interaction, while *escapism* and *passing time* should be unrelated. In addition, gratification items should be uncorrelated across gratification items (i.e. gratifications do not drive gratifications in this model). These links will be tested using Hunter's "path-e" program.

**Figure 1.3 Hypothesized Links**



## CHAPTER 2

### Method

*Participants*—427 college students from a small private college in Auburn Hills and a large community college in Southeast Michigan participated in the survey. Students in various classrooms were asked to participate in this study. Participation was completely voluntary.

With 74% of the sample female, it was decided that the analysis would only examine females. From the original sample, 313 females were extracted, and 279 female cases were retained for analysis (as they met the selection criteria of being female and having a Loneliness Type score (thus, 34 females were dropped)). It should be noted that of the 111 males (and 2 missing cases), 95 would have been retained for testing under the same selection criteria (see Discussion section for rationale and potential problems with retaining only females in the analyses).

Respondents were mostly Caucasian (82%), with 11% African American, and 3% Hispanic. The mean age was 25.5 years ( $SD = 8.3$ ). Mean score for TV viewing was 9.5 hours per week ( $SD = 8.2$ ).

*Measures*—Four major measures that must be discussed are: *loneliness type*, *gratifications*, *viewing involvement*, and *para-social interaction*. All measures except viewing involvement explicitly noted that respondents were asked to answer questions relative to the previous week, again, to try and capture the attitudes and beliefs held at a particular moment in time. The extent to which change over time occurs is not measured here. Rather, the situational disposition of the response items was designed to give the respondent a context in which to assess their states.

*Loneliness*—Typically, loneliness has been measured using the UCLA Loneliness Scale, which asks respondents how much they agree or disagree (highly disagree, disagree, neutral, agree, highly agree) on items such as how often they feel “in tune” with others, lack companionship, or feel close to people (note items 1, 4, 5, 8, 13, 14, 16, and 17 were reverse-scored (Table 2.1)). The UCLA Loneliness Scale was adapted for this study, omitting items that asked if the respondent felt alone, shy or outgoing with others. Shyness and outgoingness were considered separate and distinct personality measures, and were therefore omitted. The idea of feeling alone was considered an item that would measure solitude, and omitted.

Note that the distribution is highly skewed (Table 2.1). Most respondents feel that they are not lonely. This is important to note when loneliness type is calculated by taking the median split of this variable. There will invariably be quite a few respondents placed as highly lonely relative to those below the median. This may increase Type II error, in that, significant differences among groups may not be found when, in fact, differences may actually exist.

**Table 2.1 Loneliness Items****(1=Strongly Disagree, 5=Strongly Agree)**

<b><i>Loneliness (Perceptual) (M= 2.05, Med= 1.95, Mode= 1.53, S.D.= 0.66, Skew= .72)</i></b>
<b><i>Last week, how often did you feel...</i></b>
1. you were "in tune" with the people around you? (reverse scored)
2. you lacked companionship?
3. there was no one you could turn to?
4. part of a group of friends? (reverse scored)
5. you had a lot in common with the people around you? (reverse scored)
6. you were no longer close to anyone?
7. your interests and ideas were not shared by those around you?
8. close to people? (reverse scored)
9. left out?
10. your relationships with others were not meaningful?
11. no one really knew you well?
12. isolated from others?
13. you could find companionship when you wanted it? (reverse scored)
14. there were people who really understand you? (reverse scored)
15. people were around you but not with you?
16. there were people you could talk to? (reverse scored)
17. there were people you could turn to? (reverse scored)

**Alpha= .93**

*Solitude*—A solitude scale was constructed, and is aimed at measuring the amount of time individuals spend alone. Respondents were asked to determine how often (never, rarely, sometimes, often, always) they spent time with others (note items 2 and 6 were reverse-scored (Table 2.2)). This six-item scale includes questions that ask how often the respondent is around other people, how often they spend time alone, and how they spend time with themselves. Item 3 was not retained for analysis, as it violated parallelism tests. That is, this item was too highly correlated with other constructs (particularly with several items in the loneliness scale (see Appendix C)). Initial alpha with the item retained was 0.69; re-running the reliability analysis without the item showed a final alpha of 0.73.

In addition, solitude was also positively skewed (Table 2.2). Relatively few people reported being alone. Again, using median splits to create a high and low

category for solitude makes this variable relative to the respondents' reports. That is, high solitude individuals are in this category because they reported lower scores than half of those in the low solitude category. It is not necessarily because they were highly alone.

**Table 2.2 Solitude Items**

**(1=Always, 2=Often, 3=Sometimes, 4=Rarely, 5=Never)**

<b>Solitude (M= 2.52, Med= 2.40, Mode= 2.0, S.D. 0.71, Skew= .48) Last Week...</b>
1. How often were you around other people?
2. How often were you by yourself? (reverse scored)
3. How often did you spend time with a friend? (not retained)
4. How often did you spend time with relatives?
5. How often did you spend time with a significant other?
6. How often did you spend time alone? (reverse scored)

**Alpha= .73**

It must be noted that, in order to test the level of loneliness, it is necessary to look at loneliness as a scale item. To do this, it must be assumed that the *Classically Lonely* and the *Non-Lonely* are placed at opposite ends of the scale. An assumption has to be made in order to rank *Loners* and *Lonely with Others*, and that is the perceived loneliness will be more related to the *Classically Lonely*. So, high loneliness receives a relatively higher weight versus high solitude. Thus, *Lonely with Others* would be considered more closely related to *Classically Lonely* individuals, while *Loners* would rank just below *Lonely with Others*.

In order to create the categories of loneliness (i.e. *Classically Lonely*, *Lonely with Others*, *Loners*, and *Non-Lonely*), median splits were used to create high and low categories for each construct. Tables 2.1 and 2.2 show the median values for Loneliness (Med= 1.95) and Solitude (Med= 2.40). This may prove problematic when evaluating the hypotheses, as these now become relative categories. That is, high

loneliness is defined as anyone who scored above the median value, which is clearly below the scale's mid-point of 3. This indicates that a portion of the highly lonely individuals may not be highly lonely at, but only relatively lonelier than the respondents in the lower half of the median value.

Creating this ordinal scale is obviously problematic. To say that *Loners* are lower on the scale than *Lonely with Others* on the basis of their perceived loneliness rather than their solitude state is an assumption that cannot be validated by precedent. It has been argued earlier that the perceived loneliness will be assigned a greater weight. Thus, weights were assigned to create ordinal categories, so that the relative levels of loneliness from low to high are as follows: *Non-Lonely* = 1, *Loners* = 2, *Lonely with Others* = 3, *Classically Lonely* = 4. This was performed in order to test the path model.

Again, it can be questioned why solitude and loneliness were combined to create a loneliness type scale. Rather, why are the categories placed along a continuum for testing the path model? In truth, the original conception of the path model was that the type of loneliness would drive gratifications. The separation of solitude and loneliness was not originally designed to be separate constructs, and in fact, Table 2.7 shows a rather strong relationship between loneliness and solitude ( $r=0.39$ ,  $p<.001$ ). The distinctions were made in order to explain a continuum of loneliness as it relates to solitude. Certainly, this may be controversial, and in post hoc analysis, a revised path model can test loneliness or solitude as separate constructs along the path model.

*Gratifications*—Needs, or gratification items, look at very specific gratifications sought, particularly at needs related to *passing time*, *companionship*,

*social interaction*, and *escapism*. Respondents were asked to determine to what extent they strongly agree, agree, disagree or strongly disagree to each item as a reason for having viewed television the previous week.

It should be noted that both *passing time* (*Skew* = *-.04*) and *companionship* (*Skew* = *0.76*) were not normally distributed. This is evidenced by the modal numbers. However, *social interaction* (*Skew* = *0.24*, *Mode* = *2.0*) and *escapism* (*Skew* = *-.003*, *Mode* = *2.0*) were more

**Table 2.3 Uses & Gratifications Items**

**(1= Strongly Disagree, 5= Strongly Agree)**

*"Listed below are reasons you might watch TV. Please indicate whether you strongly agree, agree, feel neutral, disagree, or strongly disagree for each of these items as a reason you watched television LAST WEEK."*

PASS TIME (*M* = 3.12, *S.D.* = 1.02, *Skew* = *-.04*, *Mode* = 4.0)

1. it passed the time away (Pass1)
2. it gave me something to do (Pass2)
3. it helped me forget my problems (not retained)
4. I was bored (Pass3)
5. I had nothing better to do (Pass4)

***Alpha* = .88**

COMPANIONSHIP (*M* = 1.95, *S.D.* = 0.77, *Skew* = *.76*, *Mode* = 2.0)

1. so I wasn't alone (Comp1)
2. there was no one to talk to (Comp2)
3. because it made me feel less lonely (Comp3)

***Alpha* = .70**

ESCAPISM (*M* = 2.81, *S.D.* = 0.94, *Skew* = *-.003*, *Mode* = 2.0)

1. to forget about school and homework (Esc1)
2. to get away from the rest of my family (not retained)
3. to get away from what I was doing (Esc2)
4. so I didn't have to do anything when I watched (not retained)
5. took my mind off of things (Esc3)
6. escape from everyday life (Esc4)

***Alpha* = .82**

SOCIAL INTERACTION/ UTILITY (*M* = 2.26, *S.D.* = 0.74, *Skew* = *.24*, *Mode* = 2.0)

1. it was something to do when friends came over (Soc1)
2. so I could be with my family or friends (Soc2)
3. it served as a conversation topic (Soc3)
4. met new people who also watch (Soc4)

***Alpha* = .89**

*Viewing Involvement*—Viewing involvement was an adapted version of Rubin’s (1985) Affinity scale for soap operas, which measured the importance of soaps to viewers. Woods (1997) believed that involvement and importance were essentially the same, drawing from Zaichowsky’s (1986) argument that viewers who were involved in the program would “perceive importance” (p. 12). Respondents were asked to what extent they agreed or disagreed (highly disagree, disagree, neutral, agree, or highly agree) to items such as “I got very involved with the stories I see on television,” and “I liked thinking about the programs I watched” (Table 2.4).

**Table 2.4 Viewing Involvement Items**  
(1=Strongly Disagree, 5=Strongly Agree)

<b><i>Involvement (All Items Retained) (M= 3.04, S.D.= 0.87)</i></b>
1. It was important to me to watch my favorite shows. (Inv1)
2. Watching television was an important part of my daily routine. (Inv2)
3. I got very involved with the stories I saw on television. (Inv3)
4. I couldn’t wait to see what happened on my favorite shows. (Inv4)
5. I liked to think about the programs I watched. (Inv5)
6. I often thought about what happened on television as I watched the shows. (Inv6)

***Alpha= .89***

*Para-social Interaction*—Rubin, Perse, & Powell’s (1985) adapted ten-item para-social interaction scale was used to measure para-social activity. Such questions include: “When I am watching my favorite TV programs, I feel as if I am part of the group,” “I think my favorite TV characters or TV personalities are like old friends,” and “I would like to meet my favorite TV characters or TV personalities.” Respondents determined the extent to which they strongly agreed, agreed, felt neutral, disagreed, or strongly disagreed (Table 2.5).



**Table 2.5 Para-social Items**  
**(1=Strongly Disagree, 5=Strongly Agree)**

<b><i>Para-social Interaction Scale (M= 3.16, S.D.= 0.75)</i></b>
<b><i>"Think about last week and the TV programs you watched. Now think about the characters or personalities on those programs as you answer the following items."</i></b>
1. When I was watching my favorite TV programs, I feel as if I am part of the group. (Para1)
2. My favorite TV characters or TV personalities made me feel comfortable, as if I were with friends. (Para2)
3. I saw them as natural, down-to-earth people. (Para3)
4. I looked forward to watching my favorite TV characters or TV personalities.
5. If they appeared on another TV program, I would watch that program.
6. If there was a story about them in a newspaper or magazine, I would read it.
7. I missed seeing them when they were not on the program.
8. I would like to have met my favorite TV characters or TV personalities.
9. I thought they were like old friends. (Para4)
10. I found them to be attractive.

***Alpha= .80***

Table 2.6 summarizes the means for the variables tested (including Loneliness and Solitude as separate constructs), while Table 2.7 indicates the correlations among the variables tested. The table of means for each of the scale items reveals some of the potential problems that may be encountered during testing. As noted earlier, loneliness and solitude used median cut points to create high and low categories. The mean score for each (Loneliness  $M=2.05$ , Solitude  $M= 2.52$ ) is below the scale's mid-point of 3, to produce a resulting mean below the scale's mid-point for *loneliness type* ( $M= 2.46$ ,  $SD= 1.24$ ). In fact, *companionship* ( $M=1.95$ ,  $SD= 0.77$ ) and *social interaction* ( $M= 2.26$ ,  $SD= 0.74$ ) are also quite low. That is, overall, respondents do not feel lonely or alone, and do not generally use television to gratify a need for *companionship* or *social interaction*. As noted, such low mid-points (especially for loneliness and solitude) may make finding differences among groups more difficult.

**Table 2.6 Scale Means**  
**(1=Strongly Disagree, 5=Strongly Agree)**

	Mean	Std. Deviation
<b>Loneliness Type</b>	2.46	1.24
<b>Pass Time</b>	3.12	1.02
<b>Social Interaction</b>	2.26	0.74
<b>Escape</b>	2.81	0.94
<b>Companionship</b>	1.95	0.77
<b>Viewing Involvement</b>	3.04	0.87
<b>Para-social</b>	3.16	0.75
<b>Loneliness</b>	2.05	0.66
<b>Solitude</b>	2.52	0.71

In looking at Table 2.7, all of the gratifications are significantly correlated with each other. In fact, the lowest correlation is between *escapism* and *social interaction* ( $r=0.20$ ,  $p<.05$ ), and the strongest is between *escapism* and *companionship* ( $r=0.43$ ,  $p<.001$ ). Again, this may pose a problem with the path model as originally conceived, wherein gratification was seen as a uni-dimensional construct. The path model proposed (Figure 1.3) includes all gratifications, even arguing that passive gratifications will have no effect on viewing involvement. However, the path model also assumes that gratifications are not related to each other; that is, no gratification drives another gratification. Table 2.7 clearly shows that such assumptions are already violated, and will need further consideration.

**Table 2.7 Correlation Matrix of Constructs**

	Loneli ness Type	Pass Time	Social Interac tion	Escap e	Compani onship	Viewing Involve ment	Para- social	Lonel iness	Solit ude
<b>Loneliness Type</b>	1								
<b>Pass Time</b>	0.18*	1							
<b>Social Interaction</b>	0.03	0.24**	1						
<b>Escape</b>	0.07	0.22**	0.20*	1					
<b>Companion ship</b>	0.33**	0.37**	0.40**	0.43**	1				
<b>Involvement</b>	0.08	0.11	0.30**	0.35**	0.22**	1			
<b>Para-social</b>	0.04	0.12*	0.20*	0.21**	0.15*	0.46**	1		
<b>Loneliness</b>	0.79**	0.19**	0.05	0.22**	0.42**	0.12	0.05	1	
<b>Solitude</b>	0.57**	0.19**	-0.04	0.07	0.17**	0.10	0.09	0.39* *	1

\*\*  $p < .01$  \*  $p < .05$

## Results of Factor Analysis

### Internal Consistency

Using confirmatory factor analysis involves two tests of reliability—internal consistency and parallelism. Internal consistency checks are derived by taking the product of the factor loadings for each coefficient to obtain the predicted coefficient. The difference from the obtained correlation is the resulting error. For example, Table 2.6 shows the loadings for items 1 and 2 as 0.57 and 0.64 respectively. The product is 0.36. In fact, the obtained correlation was 0.34 for an error of 0.02 ( $0.36 - 0.34 = 0.02$ ). Ideally, there should be little to no error, and the closer to zero, the more reliable the item. While what constitutes too high an error rate is subjective, this study sets the threshold at  $e > 0.20$  for both the internal consistency and parallelism tests.

Internal consistency can be used for scales with four or more items (over-identified). Below are the results of each scale, excluding the *companionship* scale, which

has only three items (thus is just-identified, and cannot be tested using internal consistency). Parallelism will be discussed later.

*Loneliness*—All items were retained for analysis. Table 2.8 shows both the correlation coefficients (in the lower quadrant) and the errors produced from the difference between calculated and actual coefficients. Notice that Items 16 and 17 were much more highly correlated than expected, producing an error of 0.39. However, reliability analysis using SPSS 11.5 showed that deleting this item only slightly reduced the reliability ( $\alpha = .925$ ). Given the rather high reliability and the relatively low error rates (shown in the upper quadrant of Table 2.8 below) for both items across other items, all items were retained.

**Table 2.8 Internal Consistency of Loneliness Items**

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	--	0.02	0.08	-0.12	-0.15	0.07	-0.01	-0.05	0.02	0.03	0.04	0.06	-0.03	-0.02	0.02	0.02	0.01
2	0.34	--	-0.08	-0.02	0.04	-0.13	0	-0.02	-0.02	-0.03	0.02	-0.04	-0.07	0.06	-0.06	0.12	0.11
3	0.34	0.55	--	0.08	0.07	-0.12	-0.02	0.04	-0.03	-0.05	-0.04	-0.06	0.06	0.07	-0.01	-0.01	0.01
4	0.42	0.31	0.3	--	-0.14	0.09	0.03	-0.12	0.05	0.12	0.09	0.04	-0.05	-0.05	0.02	-0.03	-0.03
5	0.54	0.40	0.43	0.50	--	0.11	0.01	-0.10	0.00	0.06	0.08	0.03	0.02	-0.06	0.03	-0.02	-0.03
6	0.35	0.60	0.66	0.29	0.40	--	-0.1	0	-0.02	-0.05	-0.08	-0.03	0.03	0.09	-0.03	0.09	0.10
7	0.35	0.38	0.46	0.28	0.40	0.54	--	0.07	-0.07	-0.07	-0.05	-0.04	0.09	0.07	-0.17	-0.11	0.12
8	0.42	0.44	0.43	0.46	0.55	0.48	0.32	--	0.13	0.08	0.07	0.07	-0.08	-0.11	0.1	-0.06	-0.06
9	0.39	0.48	0.56	0.32	0.50	0.55	0.50	0.34	--	-0.09	-0.05	-0.17	0.05	0.13	-0.13	0.10	0.09
10	0.38	0.49	0.58	0.25	0.44	0.58	0.50	0.39	0.61	--	-0.17	-0.07	0.02	0.04	-0.04	0.08	0.09
11	0.38	0.45	0.57	0.29	0.42	0.62	0.49	0.40	0.58	0.7	--	-0.09	0.10	0.02	-0.04	0.05	0.04
12	0.36	0.51	0.59	0.34	0.47	0.57	0.48	0.40	0.70	0.6	0.62	--	0.11	0.13	-0.06	0.08	0.07
13	0.35	0.43	0.35	0.34	0.37	0.38	0.25	0.44	0.35	0.38	0.31	0.3	--	-0.16	0.06	-0.09	-0.09
14	0.40	0.36	0.41	0.39	0.52	0.40	0.33	0.54	0.35	0.44	0.46	0.35	0.53	--	0.15	-0.16	-0.15
15	0.26	0.37	0.37	0.23	0.31	0.39	0.46	0.22	0.48	0.39	0.40	0.42	0.21	0.17	--	0.09	0.06
16	0.40	0.35	0.55	0.41	0.53	0.46	0.33	0.54	0.43	0.45	0.49	0.46	0.50	0.65	0.27	--	0.39
17	0.41	0.36	0.53	0.41	0.54	0.45	0.32	0.54	0.44	0.44	0.5	0.47	0.50	0.64	0.30	0.94	--
Factor Loadings	0.57	0.64	0.73	0.52	0.69	0.74	0.60	0.65	0.72	0.72	0.73	0.73	0.56	0.66	0.49	0.74	0.74

*Alpha = .93*

*Solitude*—The Solitude scale consisted originally of six items (Table 2.9). While internal consistency checks show that all six items hold together, parallelism tests indicate that Item 3 (*How often did you spend time with a friend?*) was cross-loaded with several items in the loneliness scale (*part of a group of friends* ( $e = -0.41$ ), *you had a lot in common with the people around you?* ( $e = -0.29$ ), *there were people you could talk to?* ( $e = -0.22$ ), and *there were people you could turn to?* ( $e = -0.21$ )). Because of the sheer number of cross-loaded items, Item 3 was deleted, creating a final alpha coefficient of 0.73.

**Table 2.9 Internal Consistency of Solitude Items**

Item	1	2	3	4	5
1	--	0	-0.02	0.01	0.08
2	0.66	--	-0.02	0.11	-0.10
3	0.22	0.22	--	-0.07	-0.01
4	0.29	0.19	0.16	--	0.01
5	0.56	0.74	0.21	0.28	--
<b>Factor Loadings</b>	0.81	0.81	0.25	0.37	0.79

*Alpha* = .73

*Passing Time*—Items retained for *passing time* are indicated in Table 2.3. Internal consistency checks showed very little error (Table 2.10).

**Table 2.10 Internal Consistency of Passing Time Items**

Item	1	2	3	4
1	--	0.00	0.00	0.01
2	0.56	--	0.01	-0.01
3	0.58	0.70	--	-0.01
4	0.55	0.71	0.73	--
<b>Factor Loadings</b>	0.67	0.83	0.86	0.84

*Alpha* = .88

(note: Error calculations placed in the upper half of the correlation matrix)

*Social Use/Interaction*—Items retained for the *social interaction* scale are shown on Table 2.3. Internal consistency check shows small error rates (Table 2.11).

**Table 2.11 Internal Consistency of Social Interaction Scale**

Item	1	2	3	4
1	--	-0.01	0.05	-0.04
2	0.30	--	-0.03	0.04
3	0.43	0.32	--	-0.01
4	0.48	0.22	0.44	--
<b>Factor Loadings</b>	0.70	0.42	0.68	0.63

*Alpha*= .70

*Escape*—Items retained for the escapism scale are indicated in Table 2.3. Error rates for this scale, though somewhat higher than the other uses scales, are still well within acceptable limits (Table 2.12).

**Table 2.12 Internal Consistency of Escape Items**

Item	1	2	3	4
1	--	-0.08	0.03	0.05
2	0.60	--	0.05	0.02
3	0.56	0.62	--	-0.08
4	0.35	0.43	0.59	--
<b>Factor Loadings</b>	0.68	0.77	0.87	0.59

*Alpha*= .82

*Involvement*—All items were retained for the viewing involvement scale (see Table 2.4). While error for the correlation between Item 5 and Item 6 is somewhat higher ( $e = 0.18$ ), internal consistency check indicates that the items are reliable (i.e. small error), and all six items were retained for analysis (Table 2.13).

**Table 2.13 Internal Consistency of Involvement Items**

Item	1	2	3	4	5	6
1	--	-0.07	0.04	0.12	0.08	0.09
2	0.62	--	-0.03	0.04	0.01	0.05
3	0.57	0.57	--	-0.02	-0.03	0.01
4	0.75	0.52	0.64	--	0.07	0.05
5	0.55	0.55	0.59	0.57	--	0.18
6	0.45	0.43	0.51	0.49	0.72	--
<b>Factor Loadings</b>	0.79	0.70	0.77	0.80	0.80	0.68

**Alpha= .89**

*Para-Social Interaction*—Items retained for the para-social scale were as follows:

*“When I watched my favorite TV programs, I felt as if I was part of the group.”*

*“My favorite TV characters or TV personalities made me feel comfortable, as if I was with friends.”*

*“I saw them as natural, down-to-earth people.”*

*“I thought they were like old friends.”*

Initial CFA results indicated rather high errors testing internal consistency, and

exploratory factor analysis results indicated that the scale was not uni-dimensional.

Examination of the items indicated that the second factor seemed to reveal more of a liking toward actors and actresses (*“I found them to be attractive,” “If they appeared on another TV program, I would watch them,” “If there was a story about them in a newspaper or magazine, I would read it.”*). Moreover, these items seem to indicate that the viewer is aware that they are watching actors portraying characters. One of the fundamentals of para-social interaction is the blurring of distinction between the reality and



fantasy. Magazine articles discussing the real life of actors can be construed as separate from the televised character's life. The factor analysis would suggest this possibility.

Error rates for the retained items (Table 2.14) are within acceptable limits, thus passing the internal consistency check.

**Table 2.14 Internal Consistency of Para-Social Items**

Item	1	2	3	4
1	--	-0.02	0.04	-0.01
2	0.60	--	-0.01	0.03
3	0.39	0.52	--	-0.01
4	0.50	0.55	0.44	--
<b>Factor Loadings</b>	0.70	0.83	0.61	0.70

***Alpha* = .80**

As noted, the *companionship* scale (*Alpha* = .81) could not be checked for internal consistency, as there are only three items, making it just-identified. However, the parallelism test can be used to check the reliability.

### **Parallelism**

Parallelism tests involve looking at error of each factor against all other factors. This is calculated by taking the product of the factor loadings and the correlation between the factors to create the predicted value. The difference from the obtained value is the error. For example, looking at the para-social scale and the viewing involvement scale, the error for the first item of each scale can be calculated by taking the product of the factor loadings (0.70 and 0.79 respectively) multiplying that by the correlation of the two factors ( $r = 0.54$ ) to obtain the predicted correlation of 0.30. The obtained value was 0.26 (see the Factor Correlation Matrix in Appendix A) for a difference of 0.04. This is the calculated error. Appendix C shows all calculated error values. As noted, Item 3 ("How

*often did you spend time with friends and family? "*") produced multiple errors exceeding 0.20 within the loneliness scale, and therefore was deleted from the solitude scale.

### CHAPTER 3

#### Results--Test of Hypotheses

As noted in the Chapter 2, using median splits to determine high and low categories for solitude (*Med.* = 2.40) and loneliness (*Med.* = 1.94) yielded 279 cases. These two categories were combined to create a continuous variable where the following ranking was devised: *Non-Lonely* = 1, *Loners* = 2, *Lonely with Others* = 3, *Classically Lonely* = 4. It was determined that the affective state (loneliness) was given a higher ranking relative to the physical state (solitude), so that *Loners* were considered lower than *Lonely with Others*.

Loneliness was given a higher relative weighting versus solitude for reasons of precedent or focus. Academic study has concentrated heavily on loneliness, and not at all on solitude. In fact, as noted, elements of solitude have found their way into the UCLA Loneliness Scale. It has seemingly been assumed that being alone was essentially the same as feeling lonely. This is not assumed in this model, but it is now assumed, given this bias toward the affective aspect of loneliness, that solitude is not as strong as the feeling of loneliness. Thus, loneliness was given a relatively higher weight. This ranking will be necessary for testing the fit of the path model.

The uneven group sizes pose a slight problem (see Figure 3.1); ANOVA assumes equal cell sizes. Violation of this can be problematic. However, the means within each gratification sought can be tested despite the differences in sample size of the four categories using weighted means, as outlined by Keppel (1991).

**Figure 3.1 Distribution of Respondents-- Loneliness by Solitude**

		Physical Loneliness (Solitude)	
		ALONE	NON-ALONE
Perceived Loneliness	LONELY	Classically Lonely ( <i>n</i> =83)	Lonely with Others ( <i>n</i> =56)
	NON-LONELY	Loners ( <i>n</i> =45)	Non-lonely ( <i>n</i> =95)

Table 3.1 shows the test for homogeneity of variances. None of the gratification items violates this test, and therefore should not result in Type I error.

**Table 3.1 Levene Test of Homogeneity of Variance**

	Levene Statistic	df1	df2	Sig.
<b>Pass Time</b>	1.56	3	270	0.200
<b>Social Interaction</b>	1.69	3	272	0.170
<b>Escape</b>	2.08	3	269	0.104
<b>Companionship</b>	2.49	3	273	0.061

F-tests for weighted means involve taking the squared difference of the group means from the grand mean multiplied by the size of the sample to obtain the Sum of Squares (SS). For example, looking at Table 3.2, to calculate the SS for “Pass Time,” the grand mean is calculated by summing the Sums and dividing by the sum of the sample size:

$$\text{Grand Mean } (Y_i) = (268.0 + 142.0 + 175.5 + 269.0) / (93 + 45 + 56 + 80)$$

$$= 3.12$$

$$SS_A = (93) (2.88 - 3.12)^2 + (45) (3.17 - 3.12)^2 + (56) (3.13 - 3.12)^2 + (80) (3.36 - 3.12)^2$$

$$= (93) (.0576) + (45) (0.0025) + (56) (0.0001) + (80) (.0576)$$

$$= 10.09$$

**Table 3.2 Within-Group Measures**

Pass Time ( $F(270, 3) = 3.35, p < .05$ )				
	Non-Lonely	Loner	Lonely With Others	Classically Lonely
Sum	268.00	142.00	175.50	269.00
Sample Size	93	45	56	80
Mean	2.88	3.17	3.13	3.36
Standard Deviation	1.03	1.14	0.86	0.98

Social Interaction ( $F(272, 3) = 0.81, n.s.$ )				
	Non-Lonely	Loner	Lonely With Others	Classically Lonely
Sum	208.25	98.50	134.25	182.5
Sample Size	94	44	56	82
Mean	2.22	2.24	2.40	2.23
Standard Deviation	0.80	0.75	0.63	0.73

Escape ( $F(269, 3) = 1.22, n.s.$ )				
	Non-Lonely	Loner	Lonely With Others	Classically Lonely
Sum	257.00	117.50	158.00	235
Sample Size	92	45	56	80
Mean	2.79	2.61	2.82	2.94
Standard Deviation	1.02	1.02	0.75	0.89

Companionship ( $F(273, 3) = 11.94, p < .05$ )				
	Non-Lonely	Loner	Lonely With Others	Classically Lonely
Sum	158.67	77.33	116.00	187.67
Sample Size	94	45	56	82
Mean	1.69	1.72	2.07	2.29
Standard Deviation	0.47	0.77	0.60	0.83

By dividing the Sum of Squares by the degrees of freedom (number of groups – 1), the Mean Square is calculated:

$$\begin{aligned} MS_A &= SS_A / df_A \\ &= 10.09 / (4 - 1) \\ &= 3.36 \end{aligned}$$

The error term ( $MS_{S/A}$ , or Mean Square Error) was calculated using SPSS (see Table 3.3), which is the within-groups Mean Square (including the degrees of freedom). The F-value is calculated by taking the  $MS_A$  and dividing by the error term.

$$\begin{aligned} F &= MS_A / MS_{S/A} \\ &= 3.36 / 1.004 \\ &= 3.35 \end{aligned}$$

With 3 and 270 degrees of freedom, F-values are significant at  $p < .05$  at 2.60 and above.

So, for *passing time*, it can be stated that the groups' means are different from each other.

Table 3.3 shows the F-values for all four dependent variables, including the eta-squared, which measures the relative strength of association.

**Table 3.3 F-test for Gratification Items**

	Pass Time	Social Interaction	Escape	Companionship
<b>Grand Mean</b>	3.12	2.26	2.81	1.95
<b>Sum of Squares</b>	10.09	1.33	3.19	19.02
<b>Degrees of Freedom</b>	3	3	3	3
<b>Mean Square</b>	3.36	0.44	1.06	6.34
<b>Mean Square Error</b>	1.004	0.545	0.87	0.531
<b>Within Groups df</b>	270	272	269	273
<b>F-value (*<math>p &lt; .05</math>)</b>	3.35*	0.81	1.22	11.94*
<b>Eta-Squared</b>	.04	.01	.02	.12

While the omnibus ANOVA was not directly needed for specific hypothesis testing, it is useful as a gauge for potential effects. From this, *social interaction* and *escapism* failed to achieve statistical significance. However, differences between group means were detected in the other gratification items. Contrast analyses, which address specified hypotheses in this paper, were used to test the specific differences (Table 3.4), and will be discussed below.

**Table 3.4 Contrast Tests**

Contrast Tests						
	Value of Contrast	Std. Error	t	df	Sig. (2-tailed)	Eta-squared
Pass Time	-0.12	0.49	-0.25	270	.805	0.0003
Social Interaction	0.22	0.28	0.76	272	.450	0.002
Escape	-0.12	0.42	-0.29	269	.774	0.0002
Companionship	-1.39	0.29	-4.76	273	.000	0.07

*H1: Classically Lonely individuals will have a heightened need for companionship from television versus the other groups.*

Table 3.2 shows the group means for each gratification item. *Classically Lonely* viewers ( $M = 2.29$ ) are significantly different than the other groups, and in fact, higher than the other groups. In addition, Table 3.4 includes the eta-squared, which is a measure of the degree of association. For *companionship*, the degree of association between the *Classically Lonely* versus the other groups is 0.07, which is admittedly small. However, overall, the results are consistent with H1.

*H2: "Lonely with Others" individuals will use television as an escape more than other groups.*

In looking at H2, *Lonely with Others* had a group mean of 2.82, versus *Classically Lonely* ( $M = 2.94$ ), *Loners* ( $M = 2.61$ ) and *Non-Lonely* ( $M = 2.79$ ). None of the contrast

tests indicated significant differences among the groups. The results are not consistent with H2.

*H3: Loner individuals will use television to pass time more than other groups.*

Contrast analysis indicates that *Non-Lonely* viewers ( $M=2.88$ ) are significantly different than the other groups ( $t= 2.63, p= .009$ ), and have the lowest mean score of the four groups. *Classically Lonely* ( $M= 3.36$ ) was the highest reported mean, and contrast analysis shows a significant difference between the groups ( $t= -2.24, p= .026$ ). However, *Loners* ( $M= 3.17$ ) did not have a significant t-value ( $t= -0.25, n.s.$ ). Results indicate that *Classically Lonely* use television more to pass time. The results are not consistent with H3.

*H4: Non-Lonely individuals will use television for social interaction more than other groups.*

ANOVA tests showed no significant differences between group means for *Social Interaction*, and contrast analysis supports that. The results are not consistent with H4.

At this point, it is necessary to look at the measures of association for the first four hypothesized relationships. As mentioned above, the eta-squared for *companionship* was notably small ( $\eta^2= 0.07$ ), but was the largest measure of association among the four contrasts (Table 3.4). Therefore, even though the result was consistent with H1, it must be concluded that the measures are not strongly associated. Looking at the means of each group in Table 3.2, it would seem any differences would be driven by the *Classically Lonely*, a group defined as such because the literature has often assumed loneliness and solitude to be essentially the same. The results above would appear consistent with that assumption.



*H5: As use for companionship increases, the level of viewing involvement increases.*

The relationship between the two variables is small but positive ( $r = 0.22$ ,  $p < .001$  using SPSS 11.5—see Table 2.7). Clearly, this is not a strong relationship, however, it is statistically significant and therefore, the results are consistent with H5.

*H6: As use for social interaction increases, the level of viewing involvement increases.*

The relationship between these two constructs is moderate and positive ( $r = 0.30$ ,  $p < .001$ ). The results are consistent with H6.

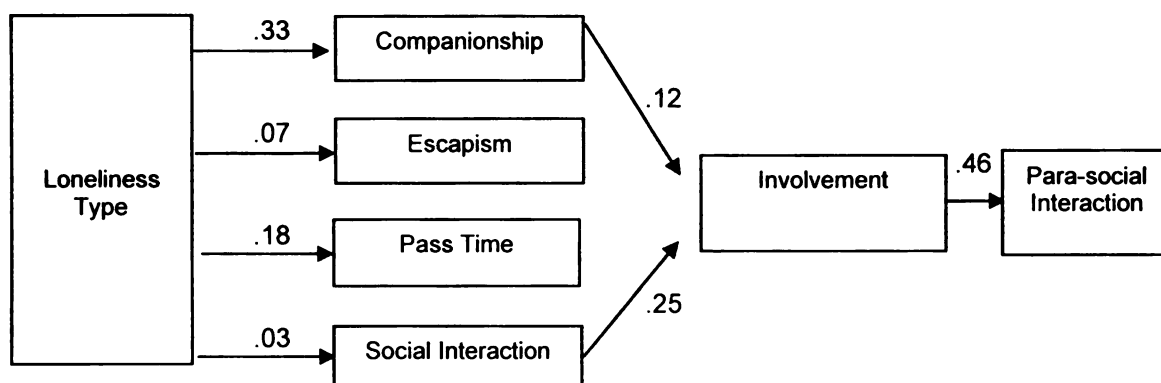
*H7: Viewing involvement will be positively correlated with para-social interaction.*

This relationship is quite strong ( $r = 0.46$ ,  $p < .001$ ). The results are consistent with H7.

*H8: Loneliness type drives the type of gratifications sought, which (as active gratifications) then drives involvement, which ultimately leads to para-social interaction.*

A test of fit was performed (Figure 3.2). The path included the loneliness type driving particular needs, which drive the level of viewing involvement, which leads to para-social interaction. Based on the type of gratification sought (active or passive), it was predicted that more active needs (i.e. *companionship* and *social interaction*) would lead to increased levels of viewing involvement, while more passive gratifications (*escapism* and *passing time*) would have no relationship to increased viewing involvement.

**Figure 3.2 Path Coefficients**



The model is tested by taking the product of predicted paths to obtain predicted path coefficients. For example, given a simple path model  $x \rightarrow y \rightarrow z$ , where  $rx_y = .5$  and  $ry_z = .5$ , the predicted relationship between  $x$  and  $z$  would be  $rx_z = .25$ . The difference between the predicted and obtained correlation produces the error. In this more complicated model proposed, Hunter's path-e program was used to calculate proposed relationships (see Table 3.5), with error rates calculated (upper half of Table 3.5).

Initial tests using Hunter's "path-e" program to look at the fit of the model (see Figure 3.2) indicate that the model has some rather large errors, particularly with the *companionship* variable (Table 3.5). It would seem that the gratification items are more highly correlated with each other than had been predicted (i.e. note the high error values in the upper quadrant of Table 3.5 in conjunction with the obtained correlations found in Table 2.7). That is, no relationship was proposed among gratification items. In addition, *escapism* was not predicted to have any relationship with *viewing involvement* or *para-social interaction*.

**Table 3.5 Predicted Coefficients and Calculated Errors in Path Model**

Error values	Loneli ness Type	Pass Time	Social Interaction	Escap e	Compa nion ship	Involve ment	Para- social
<b>Loneliness Type</b>	--	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	0.03	0.02
<b>Pass Time</b>	.18	--	0.23	0.21	0.31	0.10	0.07
<b>Social Interaction</b>	.03	.01	--	0.20	0.39	<b>0.05</b>	0.08
<b>Escape</b>	.07	.01	.00	--	0.41	0.35	0.21
<b>Companion ship</b>	.33	.06	.01	.02	--	<b>0.10</b>	0.09
<b>Involvement</b>	.05	.01	<b>.25</b>	.00	<b>.12</b>	--	<b>0.00</b>
<b>Para-social</b>	.02	.00	.12	.00	.06	<b>.46</b>	--

Note: proposed links in bold (coefficients in lower half of the matrix; errors in upper half)

Interestingly, predicted errors along the specified paths are all under 0.10 (see Table 3.5). Understanding the potential problems with the *loneliness type* variable (i.e. determining levels of loneliness by placing *Non-Lonely* and *Classically Lonely* at each end of the scale, and determining that *Loners* are less lonely than *Lonely with Others*), it would seem that there is some indication to believe that the social and emotional situation (feeling lonely and being alone) drive television use (i.e. *loneliness type* is related to particular gratifications sought—*companionship* and *passing time*), which increases viewing involvement, which drives para-social activity. However, as mentioned, this model did not account for the rather high correlations among the gratification items, nor the strength of the relationship between *viewing involvement* and *escapism*. Ultimately the model has to be rejected and reconsidered; the Chi-Square Goodness of Fit ( $\chi^2 (14) = 105.27, p < .001$ ) was simply too high, as this test looks for non-significance to indicate a good fit.

## Chapter 4

### Discussion

It has been argued that the idea of loneliness has been confounded with solitude in previous literature, and that by creating more precise categories, more accurate results linking loneliness and para-social interaction would be found. Further, it was argued that loneliness was not directly linked to para-social interaction, but rather was linked to perceived needs, which then were linked to involvement. *Viewing involvement*, ultimately, was a better predictor of para-social interaction.

The link between the need for *companionship* and *viewing involvement* was not strong ( $r = 0.22, p < .01$ ), but was significant, as was the relationship between *social interaction* and *viewing involvement* ( $r = 0.30, p < .01$ ). Ultimately, the path model failed because of the correlations among the various gratifications, and the unpredicted significant correlation between *escapism* and *viewing involvement* ( $r = 0.35, p < .01$ ). It may be that *escapism* is not as passive as once imagined, and will be examined within the limitations of this study.

While the path model was not deemed a good fit, the model does suggest that needs do play a role in determining levels of viewing involvement, and that viewing involvement is a more direct link to para-social interaction. A small and non-significant correlation between loneliness and para-social interaction ( $r = 0.05, n.s.$ ) is noted (see Table 2.7), and this result has been supported in the literature. In contrast, there is a relatively strong and significant link between involvement and para-social interaction ( $r = 0.46, p < .01$ ).

This study also indicated a link to the type of loneliness and the particular use of television. While not all hypotheses could be supported, there is evidence to indicate that

one's social situation can certainly drive the use of television to gratify a particular need, which leads to increased levels of *viewing involvement*. However, it must be noted that the measure of association (eta-squared) for each of the contrasts was quite low (Table 3.4) and that comparing the means (Table 3.2) indicated that any differences found were more likely driven by the *Classically Lonely*, named as such because they are the group typically conceptualized as lonely (that is, assumed to feel lonely and to be alone). Such discovery casts serious doubt on the necessity of differentiating loneliness from solitude. Rather, it may be that loneliness and solitude are separate constructs, but as such, do not interact to create varying degrees of loneliness—at least not one that would significantly determine the gratifications sought. But, before such conclusions can be reached, perhaps it is necessary to look at some of the limitations and problems of the study, and perhaps see if post hoc analysis might reveal any differences.

### **Limitations of Study**

This study sought to determine better links to para-social interaction and to predict the path of effects that lead from loneliness to para-social interaction. However, certain limitations became apparent and need to be acknowledged before further study can continue.

First, there were several problems with the sample. A convenience sample gathered over several weeks in a number of class rooms potentially contributed to the rather skewed demographics, particularly in terms of viewing diet and sex. The national average for viewing was over 30 hours per week in 2001 (Nielsen Media Research, 2001), well above this college sample at 9.5 hours for the previous week. With such low average viewing, it must be concluded that the sample is a rather different sample from

the U.S. population. And as such, the results from the tests are more likely to be different from a more normal sample. Thus, generalizability is compromised. This is further compounded by the exclusion of males in this study.

It had been assumed that differences by sex do not exist. However, t-tests show that differences do exist between males and females for loneliness and solitude (Table 4.1), with males reporting higher levels of both loneliness ( $M = 2.31$ ) and solitude ( $M = 2.93$ ) than females (loneliness ( $M = 2.05$ ), solitude ( $M = 2.52$ )). These differences are surprising, sparking the necessity to examine literary evidence for differences in sex.

Borys & Perlman (1985) summarized the early social-psychological literature, indicating that there were few studies that showed a main effect for gender on loneliness, but any significant results found indicated that men were lonelier than women. They suggested that the UCLA Loneliness Scale assessed loneliness “indirectly” (p. 64), which resulted in males expressing higher levels of loneliness. Direct measures of loneliness, they argued, resulted in women rating themselves as lonely more often than males, suggesting that it is “culturally more acceptable” for women to identify themselves as lonely.

More recent studies show mixed results. Page (1990) examined high school students by gender and size of high school, noting a main effect of gender on loneliness. Results indicated that males scored higher on the loneliness scale (UCLA Revised) than females (p. 152). In contrast, Archibald, Bartholomew, & Marx (1995) looked at loneliness in early adolescence, noting a main effect of gender, with females scoring higher in loneliness (p. 298). Koenig, Issacs, & Schwartz (1994) studied differences in gender, depression, and loneliness. They noted that females reported feeling more

depressed than males (p. 37), but there was no effect of sex on loneliness (p. 36). And, most confounding was Stokes & Levin's (1986) attempt to predict loneliness through measuring one's social network and network density. Two separate studies were completed, with the first study indicating no significant difference between males and females for the first sample, but the second sample indicated that females were "less lonely" (p. 1071) than males. The second study revealed that females were "significantly less lonely" (p. 1072) than males. What must be noted in the former study is that the sample included only 49 males versus 81 females for the second sample (where significant differences in sex were found), while the first sample included a more even number of males and females (males ( $n = 97$ ), females ( $n = 82$ ) (p. 1071)).

So, given the rather mixed results concerning differences in sex, and that the stated hypotheses made no prediction of differences between males and females, and given that the sample is largely female, males were not retained for analysis. If a true difference exists between females and males on loneliness and solitude, the literature does not support a consistent answer, and this study was not designed to make that determination, and therefore only females were analyzed.

These t-test results (Table 4.1) are certainly intriguing, and one wonders what interaction effects might result from a 2 X 4 ANOVA looking at sex and *loneliness type*. However and again, the original hypotheses made the initial assumption that no differences between the sexes existed for loneliness, solitude, and gratification seeking as a result of the type of loneliness. Table 4.1 clearly shows that such an assumption was a faulty one. Since this study made no assumption of differences by sex, analyses including males could indeed drive differences, but would not be properly assigned as a main effect

of sex. It is possible that including males in the analyses could increase the statistical power and provide more variation in *loneliness type* (i.e. loneliness and solitude), which could increase the likelihood of covariation in the predicted uses. However, this assumes no differences in how men and women view. The t-tests do not support this assumption. The literature, in addition, is conflicted. If differences do exist between males and females, adding males to the analyses could potentially confound results, perhaps leading to false conclusions. Effects might be masked if males were retained in the study, or that the male influence may drive the differences, which would not be picked up with the given tests. Therefore, only females were retained for analysis. This is understandably a limitation of this study, and future research should look to determine differences by sex or gender.

**Table 4.1 T-test Comparing Females and Males across Constructs**

	sex	N	Mean	Std. Deviation	Std. Error Mean	t	df	sig.
Para-Social	female	311	3.17	0.76	0.04	0.85	420	0.394
	male	111	3.10	0.83	0.08			
Viewing Involvement	female	311	3.01	0.88	0.05	0.50	417	0.616
	male	108	2.96	0.74	0.07			
Passing Time	female	308	3.13	1.03	0.06	-2.43	412	0.015
	male	106	3.39	0.79	0.08			
Social Interaction	female	309	2.26	0.73	0.04	-2.86	415	0.004
	male	108	2.49	0.70	0.07			
Escapism	female	308	2.79	0.94	0.05	-1.19	414	0.235
	male	108	2.91	0.97	0.09			
Companionship	female	312	1.97	0.79	0.04	-3.73	419	0.000
	male	109	2.31	0.91	0.09			
Loneliness	female	290	2.05	0.66	0.04	-3.42	390	0.001
	male	102	2.31	0.59	0.06			
Solitude	female	303	2.52	0.71	0.04	-5.21	405	0.000
	male	104	2.93	0.65	0.06			
Calculated Loneliness Type	female	279	2.46	1.24	0.07	-5.24	372	0.000
	male	95	3.20	1.07	0.11			



The *loneliness type* scale is problematic for two reasons—the determination of groups and ranking of groups. The loneliness scale and solitude scale were used, taking the median splits to obtain relatively equal cell sizes for each group. When using median splits, the results indicate a relative feeling of loneliness versus the rest of the respondents and a relative sense of solitude in like manner. Thus, relatively equal cell sizes are achieved; however, actual loneliness and solitude may not be achieved. Table 4.2 shows the breakdown of the loneliness type by solitude using the scale’s point.

**Table 4.2 Solitude by Loneliness Type**

<b>Solitude</b>	<b>Non-Lonely</b>	<b>Loner</b>	<b>Lonely with Others</b>	<b>Classically Lonely</b>
<b>Below 3.0</b>	95	22	56	26
<b>Greater than or equal to 3.0</b>	0	23	0	57

While *Non-Lonely* and *Lonely with Others* fell within expected cells, 22 cases of Loners would fall in the low solitude category if the scale’s true mid-point were used (26 cases for *Classically Lonely*). Likewise, Table 4.3 shows the same breakdown by Loneliness.

**Table 4.3 Loneliness by Loneliness Type**

<b>Loneliness</b>	<b>Non-Lonely</b>	<b>Loner</b>	<b>Lonely with Others</b>	<b>Classically Lonely</b>
<b>Below 3.0</b>	95	45	52	60
<b>Greater than or equal to 3.0</b>	0	0	4	23

Again, it is evident that quite a few cases are misplaced. *Lonely with Others* and *Classically Lonely* cases have 52 and 60 cases respectively of respondents feeling less than the scale’s mid-point of loneliness.

Table 4.4 shows the group means by gratification sought. With only eight cases retained for analysis in the *Lonely with Others* group, it seems unlikely that significant results will be achieved. In fact, it is quite likely that the homogeneity of variance assumption will be violated. In looking at the means, there also does not appear to be a linear trend for any of the gratifications.

**Table 4.4 Table of Means—Recalculated Loneliness Type  
(1=Strongly Disagree, 5=Strongly Agree)**

<b>Loneliness type with true midpoint</b>					
		<b>Pass Time</b>	<b>Social Interaction</b>	<b>Escape</b>	<b>Companionship</b>
<b>Non-lonely</b>	<b>Mean</b>	<b>3.05</b>	<b>2.33</b>	<b>2.75</b>	<b>1.84</b>
	<b>N</b>	227	229	228	230
	<b>Std. Deviation</b>	0.97	0.73	0.93	0.67
<b>Loner</b>	<b>Mean</b>	<b>3.43</b>	<b>2.32</b>	<b>2.85</b>	<b>2.06</b>
	<b>N</b>	90	91	89	90
	<b>Std. Deviation</b>	0.95	0.76	0.97	0.80
<b>Lonely with Others</b>	<b>Mean</b>	<b>3.53</b>	<b>2.00</b>	<b>3.03</b>	<b>2.75</b>
	<b>N</b>	8	8	8	8
	<b>Std. Deviation</b>	0.63	0.68	0.71	0.56
<b>Classically Lonely</b>	<b>Mean</b>	<b>3.37</b>	<b>2.18</b>	<b>3.23</b>	<b>2.66</b>
	<b>N</b>	32	32	31	32
	<b>Std. Deviation</b>	0.89	0.66	0.94	0.88

While there was no violation of the homogeneity of variance (Table 4.5) in post hoc analysis using the scales' mid-point of 3.0 to create a new *loneliness type* scale, none of the proposed hypotheses showing gratifications differing by *loneliness type* achieved statistical significance (Table 4.6). In fact, eta-squared values are lower than initial results (Table 3.4), invalidating any claim for a true mid-point in determining the distribution of loneliness and solitude into high and low categories.

**Table 4.5 Post Hoc Test of Homogeneity of Variance**

Gratification	Levene Statistic	df1	df2	Sig.
Pass Time	0.92	3	262	0.432
Social	1.30	3	264	0.276
Escape	0.63	3	261	0.594
Companionship	1.51	3	265	0.211

**Table 4.6 Post-Hoc Contrasts Using Recalculated Loneliness Type**

Contrast Tests						
Gratification	Value of Contrast	Std. Error	t	df	Sig. (2-tailed)	Eta-squared
Pass Time	0.03	0.59	-0.04	262	.966	0.000
Social Interaction	0.47	0.37	1.27	264	.203	0.006
Escape	0.29	1.02	-0.28	261	.780	0.0003
Companionship	0.85	0.56	1.53	265	.128	0.009

The second noted problem was of the ranking of *loneliness type*. While this was not necessary for ANOVA testing, it was necessary to create a rank order and to assume ordinal scaling to test the path model, as it was believed that the increasing degree of *loneliness type* (the combination of *solitude* and *loneliness*) would drive the types of gratifications sought. Given the rather high correlation between *solitude* and *loneliness* ( $r = 0.39, p < .001$ ), it is easy to conclude that *loneliness* and *solitude* may be uni-dimensional, despite the results from confirmatory factor analysis, which indicated that they are separate constructs.

A potential solution would be to simply reverse the loneliness types in question, that is, rank *Lonely with Others* below *Loners* and re-run the analysis. While this is tempting, the same problem occurs: there is no theoretical basis for ranking these groups. The only other possible solution would be to group *Lonely with Others* with *Loners* in order to make comparisons between groups. In this, one could argue that the groups do

not have both traits (loneliness and solitude) and therefore are somewhere in between the lonely and non-lonely groups.

Table 4.7 shows that, at least in passing time and companionship, there seems to be a linear trend (that is, as the loneliness type increases, the gratification sought increases). However, contrast analysis results (note that passing time and escapism used the combined groups and were run similarly to the hypothesized tests) shown in Table 4.8 indicate that the groups are not significantly different from each other, excepting companionship. The results are similar to the original tests of differences in the four-group typology (see Table 3.4). Also, of note, the eta-squared measures of association are almost identical to the original results (i.e. weakly associated).

**Table 4.7 Table of Means—Three Group Typology of Loneliness**

		<b>Pass Time</b>	<b>Social Interaction</b>	<b>Escape</b>	<b>Companionship</b>
<b>Non-Lonely</b>	Mean	2.88	2.22	2.79	1.69
	N	93	94	92	94
	Std. Deviation	1.03	0.80	1.02	0.68
<b>Loners/ Lonely with Others</b>	Mean	3.15	2.33	2.73	1.91
	N	101	100	101	101
	Std. Deviation	0.99	0.69	0.89	0.70
<b>Classically Lonely</b>	Mean	3.36	2.23	2.94	2.29
	N	80	82	80	82
	Std. Deviation	0.98	0.73	0.89	0.83

**Table 4.8 Contrasts Using Three Group Typology of Loneliness**

	Value of Contrast	Std. Error	t	df	Sig.	eta-squared
<b>Pass Time</b>	-0.05	0.25	-0.21	271	0.833	0.0001
<b>Social Interaction</b>	0.12	0.19	0.65	273	0.516	0.002
<b>Escape</b>	0.28	0.23	1.17	270	0.241	0.005
<b>Companionship</b>	-0.98	0.19	-5.04	274	0.000	0.08

The hypothesized results did not support distinction between types of loneliness. While one could potentially be a loner, having a high degree of solitude and a low degree of loneliness, for example, this person is essentially no different than a *Lonely with Other* or *non-lonely* individual in this study. In light of the results using the recalculated *loneliness type*, the measure is not consistent with the hypothesized relationships, similar to the original tests. *Loneliness* and *solitude*, when used to make distinctions in the type of loneliness one experiences, do not seem to determine the gratifications sought, at least not when making such fine distinctions between loneliness and solitude (i.e. *Loners* and *Lonely with Others*). Further, given the results shown in Table 4.8, there is no support for a third group that exists between the lonely and non-lonely.

Next, the path model may have been unnecessarily complicated. The model attempted to predict four separate gratifications based on increasing degree of loneliness. Further, each gratification was then thought to be uncorrelated with all other gratifications. Finally, only active gratifications (*companionship* and *social interaction*) were believed to be linked to *viewing involvement*. Each of these points must be more closely examined.

First, it was believed that a particular type of loneliness had a higher or lower degree of loneliness and would determine the gratification sought. However, contrast

analysis clearly indicated that differences did not exist among the groups, and that, if any association existed that resembled this low to high degree of use (that is, that as the degree of loneliness increases, then the gratification sought increases), *companionship* is that variable (see means in Table 3.2), and in fact, Table 2.7 shows that *companionship* and *loneliness type* are the only positively and significantly strong relationship ( $r=0.33$ ,  $p<.001$ ).

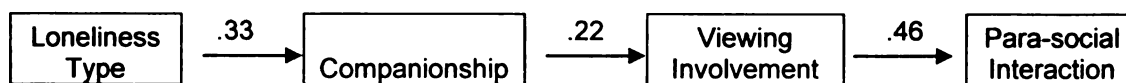
Second, it was also originally assumed that gratifications would be uncorrelated. However, Table 2.7, as mentioned, shows that all the gratifications are significantly correlated with each other. Again, the problem is in design. The original path model, as in the case of *loneliness type*, assumed some sort of omnibus gratification scale, as if there was a varying degree of overall use. This was flawed, and attempting to account for all four gratifications sought ultimately complicated the path model.

Thirdly, the active gratifications were believed to lead to increased *viewing involvement*, and while the results were consistent with those hypotheses, an unanticipated relationship between *escapism* and *viewing involvement* emerged ( $r=0.35$ ,  $p<.001$ ). In fact, this was the strongest relationship between any gratification and *viewing involvement*. Such a result is quite surprising, leading one to question the assumption behind activity and passivity and attention to media. That, or perhaps *escapism* is not quite as passive as originally conceptualized. It would seem that people who want to escape become more highly involved in this mediated reality than those who seek *social interaction* or mere *companionship*. It may even be that those with escapist needs more completely immerse themselves into the world of television, which was heretofore not

considered. This calls into question the passivity of *escapism*, as mentioned. In any event, such an unanticipated relationship did lead to the path model not proving to be a good fit.

This leads to the conclusion that a simpler model of effects needs to be tested. In looking at the original links, *companionship*, as noted had the strongest correlation of the gratifications sought and *loneliness type*, and therefore will be retained for this post hoc analysis, as will the *loneliness type*, with the understanding of its stated limitations. Thus, a new path model was developed (Figure 4.1).

**Figure 4.1 Post Hoc Path Model**



This model is much simpler, and produces very little error (Table 4.9). This is further evidenced by an acceptable Goodness of Fit chi-square statistic ( $\chi^2 (3) = 0.35$ ,  $p=.950$ ). The chi-square value is low, but more importantly, the non-significant p-value shows that the model fits well. From this result (i.e. the high non-significant p-value), there is an indication that the degree of loneliness with solitude (*loneliness type*) drives the use of television for *companionship*, which increases viewing involvement, which then increases para-social interaction. Of course this is stated with the given understanding of the problems with the *loneliness type*.

**Table 4.9 Post Hoc Predicted Path Coefficients and Resulting Error**

	<b>Loneliness Type</b>	<b>Companionship</b>	<b>Viewing Involvement</b>	<b>Para-social Interaction</b>
<b>Loneliness Type</b>		0.00	0.01	0.01
<b>Companionship</b>	0.33		0.00	0.05
<b>Viewing Involvement</b>	0.07	0.22		0.00
<b>Para-social Interaction</b>	0.03	0.10	0.46	

Note: coefficients in lower half of the matrix, error terms in upper half

### **Future Directions**

This study has only looked at loneliness and para-social interaction as it relates to television. Other media need closer examination. In particular, internet communication has potential for interesting results. Given instant messages or email, can such distinct categories of loneliness and solitude (i.e. *Lonely with Others and Loners*) exist for other media where it may have failed for television? How does this affect the perception of loneliness—is one considered a *Loner* or *Lonely with Others* while communicating or even playing online games against virtual (but real) others?

Can there be a passive (ritualized) orientation with other media? That is, can one engage in mediated conversation, play an online game with others, and otherwise seek web-based entertainment in either active or passive roles? More importantly, is the resulting interaction considered para-social? Is there really a difference? To be sure, the interactive aspect is not present in televised programming, but the physical connection or proximity is also missing in other media, such as online messaging. In fact, it is possible to carry on a complete conversation in real time and never hear or see the other person. Can this be considered *social interaction*? If so, the distinction between social and para-social begin to blur, as the perceived connection—free of physical proximity, becomes



the necessary criterion for interaction. Lines and definitions blur given this new mediated landscape.

Para-social interaction is not necessarily a function of loneliness, and almost certainly not a direct antecedent. Lonely people may believe characters to be more real, more important to them than less lonely individuals, but it seems logical to think that the viewer who is more involved in a program will more likely identify with televised personae. It may be fair to say that loneliness may eventually lead one to an increased level of involvement with television, but television can provide a platform for involvement for any number of viewers in any number of social contexts (i.e. those not lonely). Para-social interaction, then, becomes a function of how willing a person is to identify with the televised world versus their own. From there, it is a matter of predicting what variables lead to the inclination toward that immersion.

This study has sought to synthesize research in loneliness and para-social interaction. Consistent with past research, loneliness and para-social interaction have been very weakly and non-significantly related. And, while the literature has looked at involvement or relationship importance (Rubin & McHugh, 1987, p. 285), involvement was seen as the end result of para-social interaction rather than the variable that drives para-social interaction. Also, research in viewing orientation has suggested more active and more passive forms of viewing; evidence exists to support the idea that loneliness leads to a more passive orientation (Perse & Rubin, 1990). However, the idea that loneliness and para-social interaction are somehow directly related persisted. Perhaps it simply seems too logical to not continue to consider that link as somehow strong.

Why exactly is loneliness not directly linked to para-social interaction? As noted, Perse & Rubin (1989) indicated that the development of bonds with televised characters was a normal result of viewing television. That is, para-social interaction is not limited to lonely viewers. If that is true, then it would follow that loneliness and para-social interaction would be weakly correlated, if at all. If these two constructs are truly related yet weakly correlated, then there must be intervening variables. Loneliness may lead to para-social interaction; however, para-social interaction is driven by some other variable (here argued as *viewing involvement*).

This study has attempted to take this link between para-social interaction and loneliness and find the intervening links. While loneliness does not drive para-social interaction, there does seem to be some association between the type of loneliness and the gratifications sought (*companionship*), which ultimately leads to para-social interaction (via *viewing involvement*). Admittedly, this was accomplished in post hoc analysis, but this should not diminish the implications that viewing involvement better predicts para-social interaction (as found in the original analysis), and that loneliness is not directly or significantly linked to para-social interaction, but rather falls along a path toward para-social interaction.

Of importance is the state of loneliness one perceives. In fact, perception is the very essence of loneliness. However, past definitions have made no distinction between the perceived state and the physical state. This study has sought to make that distinction by adding solitude as a separate construct, and creating different types of loneliness based on the distinction between being alone and feeling lonely. However, results would indicate that there is little support for separating solitude from loneliness. The post hoc

path model does show a good fit, but the type of loneliness based on loneliness and solitude did not indicate differences in predicted gratifications sought. In fact, it seemed that the *Classically Lonely* typically reported the highest means, and *Non-lonely* with the lowest means. It must follow then, that solitude need not be separated from loneliness. Perhaps such distinctions do exist; that is, there are people who feel lonely in a crowd, or others that enjoy their solitude, but it is problematic to place them along a scale, or to say that differences in gratifications sought somehow differ. Loneliness itself would be sufficient, at least in looking at gratifications sought from television.

As our society becomes increasingly more integrated globally through electronic media, physical boundaries no longer constrain us from interpersonal communication in real time at relatively low cost. Psychological distance becomes the new measure of isolation. It may well be that loneliness is measured more by the number of media/communication outlets available. Social and para-social interaction may become nothing more than the difference between being answered and ignored. While this study does not address various media channels or delves into the link between media channels and loneliness, it does suggest that continued refinement on the nature of loneliness is a necessity in a society that is constantly evolving and even redefining itself, at least from a communication standpoint.

What exactly is the nature of loneliness and its role in para-social interaction? As stated earlier, this study has argued that loneliness is a combination of perceived social isolation and solitude. It has been asserted that loneliness is not the same as being alone, that loneliness, whether it is in isolation or in the presence of others, and identification with others, is a trait that we all have regardless of the degree of solitude or loneliness in

our present situations. While this study was not able to show differences when looking at finer distinctions made between loneliness and solitude, it was able to show that loneliness is not directly linked to para-social interaction—that it fits within a path leading to para-social interaction.

We watch television when we are alone, with others, feeling lonely, or happily (and even unhappily) with our family and/or friends. These conditions do not determine the extent to which individuals bond with characters on television. It is that person who is involved with the program that will more likely develop a para-social bond. It is that person who decides to care, who pays attention to the program, that is, the characters, what they say, and what happens to them, that will create the bond. An experience witnessed is still an experience, even if that experience is in the realm of fiction. And while the viewer cannot express her feelings toward the characters on television to them nor enjoy any real feedback from them, are the identification and any affective response toward them any less real? Are feelings and perceptions confined to physical reality, or can we be gratified by that which is not real?

Gratification is clearly not confined to our physical reality. In fact, uses & gratification literature have indicated that gratification sought can be achieved from mediated materials. These gratifications sought develop as a result of perceived needs. This study has looked at loneliness type in the formation of the need for gratifying a need to pass the time, to escape from reality, to interact socially with others, or for companionship. It is the act of seeking gratification that leads to increased involvement with the very thing that provides gratification, in this case, television programs, rather, the characters within these programs.

But most importantly, the link between loneliness and para-social interaction must, at some point, be abandoned. The literature for the last twenty-five years has clearly indicated a very small effect size between the two, and this study has mirrored those results. While the path model provided was not an acceptable fit, there is certainly evidence to support the notion that gratification leads to involvement, which leads to para-social interaction. It is important to realize that loneliness is but a small player in ultimately determining para-social interaction. This study has suggested viewing involvement as a predictor of para-social interaction; further thought and development of factors related to para-social interaction must continue, but can only do so when and if we are willing to accept that loneliness is not the direct antecedent to para-social interaction.

## Appendix A Confirmatory Factor Analysis Factor Loadings and Correlation Matrix

**Factor Loadings**

<b>Para-Social</b>	<b>Involvement</b>	<b>Pass Time</b>	<b>Social Interaction</b>	<b>Escape</b>	<b>Companion ship</b>
0.7	0.79	0.67	0.7	0.68	0.82
0.83	0.7	0.83	0.42	0.77	0.66
0.61	0.77	0.86	0.68	0.87	0.82
0.7	0.8	0.84	0.63	0.59	
	0.8				
	0.68				

**Factor Correlation Matrix**

	<b>Para-Social</b>	<b>Involvement</b>	<b>Pass Time</b>	<b>Social Interaction</b>	<b>Escape</b>	<b>Companion ship</b>
<b>Para-Social</b>	1	0.54	0.15	0.21	0.27	0.15
<b>Involvement</b>	0.54	1	0.13	0.35	0.41	0.21
<b>Pass Time</b>	0.15	0.13	1	0.25	0.28	0.39
<b>Social Interaction</b>	0.21	0.35	0.25	1	0.32	0.57
<b>Escape</b>	0.27	0.41	0.28	0.32	1	0.56
<b>Companionship</b>	0.15	0.21	0.39	0.57	0.56	1

## APPENDIX B Survey Instrument

*The following is a survey looking at your opinions on television. We'd like to know more about how you felt and what you thought about regarding television from last week. Please answer the questions below honestly. All answers will be strictly confidential.*

<b>Think about last week and the TV programs you watched. Now think about the characters or personalities on those programs as you answer the following items.</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Dis agree</b>	<b>Strongly Disagree</b>
When I watched my favorite TV programs, I felt as if I was part of the group.					
My favorite TV characters or TV personalities made me feel comfortable, as if I was with friends.					
I saw them as natural, down-to-earth people.					
I looked forward to watching my favorite TV characters or TV personalities.					
If they appeared on another TV program, I would watch that program.					
If there was a story about them in a newspaper or magazine, I would read it.					
I missed seeing them when they were not on the program.					
I would like to have met my favorite TV characters or TV personalities.					
I thought they were like old friends.					
I found them to be attractive.					

	<b>Primarily alone</b>	<b>Primarily with others</b>
When you watched television last week, did you watch...		

<b>Last week...</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Dis agree</b>	<b>Strongly Dis agree</b>
It was important to see my favorite programs from beginning to end.					
I usually planned my evenings so I did not miss my favorite TV					

programs.					
I usually checked the time so that I did not miss my favorite programs.					

	<b>Very Often</b>	<b>Often</b>	<b>Some times</b>	<b>Rarely</b>	<b>Never</b>
How often did you select the programs YOU watched last week?					

<b><i>Last week...</i></b>	<b>Never</b>	<b>Rarely</b>	<b>Some times</b>	<b>Often</b>	<b>Always</b>
How often were you around other people?					
How often were you by yourself?					
How often did you spend time with a friend?					
How often did you spend time with relatives?					
How often did you spend time with a significant other?					
How often did you spend time alone?					

Many people do other things at the same time they watch TV. Below you will find a list of things that you might have done while watching your favorite TV programs last week. For each item, indicate how often you engaged in that activity: <b>very often, often, sometimes, rarely, or never.</b>					
	<b>Very Often</b>	<b>Often</b>	<b>Some times</b>	<b>Rarely</b>	<b>Never</b>
Reading a book or newspaper					
Getting something to eat					
Eating					
Taking care of children					
Doing housework					
Talking about what is on TV					
Talking about things not on TV					
Talking to friends about TV					
Talking to friends about other things					
Snacking					



**Please read the following four statements and choose the ONE that best describes you.**

"Last week, no one was around, and I felt quite lonely."	
"Last week, there were people around me, but I did not feel as though I were part of the group."	
"Last week, I was by myself a lot, but I didn't feel all that lonely."	
"Last week, I was with friends and/or family a lot. People were around all the time, and I did not feel lonely much at all."	

<b>Think about last week and the television programs you watched.</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neut ral</b>	<b>Disagree</b>	<b>Strong ly Dis agree</b>
It was important to me to watch my favorite shows.					
Watching television was an important part of my daily routine.					
I got very involved with the stories I see on television.					
I couldn't wait to see what happened on my favorite shows.					
I liked thinking about the programs I watched.					
I often thought about what was happening on television as I watched the shows.					

<b>Last week, how often did you feel...</b>	<b>Never</b>	<b>Rarely</b>	<b>Som etim es</b>	<b>Often</b>	<b>Alway s</b>
you were "in tune" with the people around you?					
you lacked companionship?					
there was no one you could turn to?					
part of a group of friends?					
you had a lot in common with the people around you?					
you were no longer close to anyone?					

your interests and ideas were not shared by those around you?					
close to people?					
left out?					
your relationships with others were not meaningful?					
no one really knew you well?					
isolated from others?					
you could find companionship when you wanted it?					
there were people who really understood you?					
people were around you but not with you?					
there were people you could talk to?					
there were people you could turn to?					

<i>Listed below are reasons you might watch TV. Please indicate whether you strongly agree, agree, feel neutral, disagree, or strongly disagree for each of these items as a reason you watched television LAST WEEK.</i>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neut ral</b>	<b>Disagree</b>	<b>Strong ly Dis agree</b>
it passed the time away					
so I could be with my family or friends					
it helped me forget my problems					
escape from everyday life					
I had nothing better to do					
to get away from the rest of my family					
it gave me something to do because it made me feel less lonely					
to forget about school and homework					
took my mind off of things					
to get away from what I was doing					
so I wasn't alone					
I was bored					
met new people who also watch					

it was something to do when friends came over					
so I didn't have to do anything when I watched					
it served as a conversation topic					
there was no one to talk to					

What is your age?	
-------------------	--

	<b>Male</b>	<b>Female</b>
Gender?		

<b>Ethnicity</b>	<b>Caucasian</b>	<b>African American</b>	<b>Hispanic</b>	<b>Asian</b>	<b>Other</b>

How many hours last week did you spend watching television?	
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<b>APPENDIX C Calculation of Errors (Test of Parallelism)</b>							
		Para-Social	Involvement	Product of Factor Loadings	predicted	obtained	error
part of group	important to watch fav shows	0.7	0.79	0.54	0.30	0.26	0.04
	daily routine	0.7	0.7	0.54	0.26	0.24	0.02
	get involved w/ stories	0.7	0.77	0.54	0.29	0.3	-0.01
	couldn't wait to see what happened	0.7	0.8	0.54	0.30	0.26	0.04
	like thinking about shows	0.7	0.8	0.54	0.30	0.3	0.00
	thought about as I watched	0.7	0.68	0.54	0.26	0.3	-0.04
comfortable, as if w/ friends	important to watch fav shows	0.83	0.79	0.54	0.35	0.25	0.10
	daily routine	0.83	0.7	0.54	0.31	0.29	0.02
	get involved w/ stories	0.83	0.77	0.54	0.35	0.31	0.04
	couldn't wait to see what happened	0.83	0.8	0.54	0.36	0.27	0.09
	like thinking about shows	0.83	0.8	0.54	0.36	0.32	0.04
	thought about as I watched	0.83	0.68	0.54	0.30	0.35	-0.05
down to earth	important to watch fav shows	0.61	0.79	0.54	0.26	0.18	0.08
	daily routine	0.61	0.7	0.54	0.23	0.17	0.06
	get involved w/ stories	0.61	0.77	0.54	0.25	0.29	-0.04
	couldn't wait to see what happened	0.61	0.8	0.54	0.26	0.19	0.07
	like thinking about shows	0.61	0.8	0.54	0.26	0.23	0.03
	thought about as I watched	0.61	0.68	0.54	0.22	0.25	-0.03
like old friends	important to watch fav shows	0.7	0.79	0.54	0.30	0.37	-0.07
	daily routine	0.7	0.7	0.54	0.26	0.36	-0.10
	get involved w/ stories	0.7	0.77	0.54	0.29	0.34	-0.05
	couldn't wait to see what happened	0.7	0.8	0.54	0.30	0.3	0.00
	like thinking about shows	0.7	0.8	0.54	0.30	0.38	-0.08
	thought about as I watched	0.7	0.68	0.54	0.26	0.37	-0.11
		Para-Social	Pass Time	Product of Factor Loadings	predicted	obtained	error

part of group	passed time away	0.7	0.67	0.15	0.07	0.09	-0.02
	gave me something to do	0.7	0.83	0.15	0.09	0.12	-0.03
	bored	0.7	0.86	0.15	0.09	0.08	0.01
	nothing better to do	0.7	0.84	0.15	0.09	0.01	0.08
comfortable, as if w/ friends	passed time away	0.83	0.67	0.15	0.08	0.07	0.01
	gave me something to do	0.83	0.83	0.15	0.10	0.13	-0.03
	bored	0.83	0.86	0.15	0.11	0.09	0.02
	nothing better to do	0.83	0.84	0.15	0.10	0.06	0.04
down to earth	passed time away	0.61	0.67	0.15	0.06	0.08	-0.02
	gave me something to do	0.61	0.83	0.15	0.08	0.14	-0.06
	bored	0.61	0.86	0.15	0.08	0.1	-0.02
	nothing better to do	0.61	0.84	0.15	0.08	0.1	-0.02
like old friends	passed time away	0.7	0.67	0.15	0.07	0.08	-0.01
	gave me something to do	0.7	0.83	0.15	0.09	0.09	0.00
	bored	0.7	0.86	0.15	0.09	0.11	-0.02
	nothing better to do	0.7	0.84	0.15	0.09	0.02	0.07
		Para-Social	Social Interaction	Product of Factor Loadings	predicted	obtained	error
part of group	something to do w/ friends came over	0.7	0.7	0.21	0.10	0.08	0.02
	be w/ family/friends	0.7	0.42	0.21	0.06	0.07	-0.01
	conversation topic	0.7	0.68	0.21	0.10	0.1	0.00
	met new people	0.7	0.63	0.21	0.09	0.14	-0.05
comfortable, as if w/ friends	something to do w/ friends came over	0.83	0.7	0.21	0.12	0.1	0.02
	be w/ family/friends	0.83	0.42	0.21	0.07	0.09	-0.02
	conversation topic	0.83	0.68	0.21	0.12	0.16	-0.04
	met new people	0.83	0.63	0.21	0.11	0.09	0.02
down to earth	something to do w/ friends came over	0.61	0.7	0.21	0.09	0.04	0.05
	be w/ family/friends	0.61	0.42	0.21	0.05	0.02	0.03
	conversation topic	0.61	0.68	0.21	0.09	0	0.09
	met new people	0.61	0.63	0.21	0.08	0.06	0.02
like old friends	something to do w/ friends came over	0.7	0.7	0.21	0.10	0.08	0.02
	be w/ family/friends	0.7	0.42	0.21	0.06	0.1	-0.04
	conversation topic	0.7	0.68	0.21	0.10	0.18	-0.08
	met new people	0.7	0.63	0.21	0.09	0.16	-0.07

		Para-Social	Escapism	Product of Factor Loadings	predicted	obtained	error
part of group	forget school/homework	0.7	0.68	0.27	0.13	0.04	0.09
	get away from what I was doing	0.7	0.77	0.27	0.15	0.18	-0.03
	took mind off things	0.7	0.87	0.27	0.16	0.09	0.07
	escape everyday life	0.7	0.59	0.27	0.11	0.17	-0.06
comfortable, as if w/ friends	forget school/homework	0.83	0.68	0.27	0.15	0.15	0.00
	get away from what I was doing	0.83	0.77	0.27	0.17	0.17	0.00
	took mind off things	0.83	0.87	0.27	0.19	0.16	0.03
	escape everyday life	0.83	0.59	0.27	0.13	0.22	-0.09
down to earth	forget school/homework	0.61	0.68	0.27	0.11	0.08	0.03
	get away from what I was doing	0.61	0.77	0.27	0.13	0.12	0.01
	took mind off things	0.61	0.87	0.27	0.14	0.11	0.03
	escape everyday life	0.61	0.59	0.27	0.10	0.06	0.04
like old friends	forget school/homework	0.7	0.68	0.27	0.13	0.11	0.02
	get away from what I was doing	0.7	0.77	0.27	0.15	0.18	-0.03
	took mind off things	0.7	0.87	0.27	0.16	0.15	0.01
	escape everyday life	0.7	0.59	0.27	0.11	0.22	-0.11
		Para-Social	Companio nship	Product of Factor Loadings	predicted	obtained	error
part of group	so I wasn't alone	0.7	0.82	0.15	0.09	0.05	0.04
	no one to talk to	0.7	0.66	0.15	0.07	0.04	0.03
	feel less lonely	0.7	0.82	0.15	0.09	0.13	-0.04
comfortable, as if w/ friends	so I wasn't alone	0.83	0.82	0.15	0.10	0.1	0.00
	no one to talk to	0.83	0.66	0.15	0.08	0.08	0.00
	feel less lonely	0.83	0.82	0.15	0.10	0.17	-0.07
down to earth	so I wasn't alone	0.61	0.82	0.15	0.08	-0.05	0.13
	no one to talk to	0.61	0.66	0.15	0.06	0	0.06
	feel less lonely	0.61	0.82	0.15	0.08	0.14	-0.06
like old friends	so I wasn't alone	0.7	0.82	0.15	0.09	0.06	0.03
	no one to talk to	0.7	0.66	0.15	0.07	0.05	0.02
	feel less lonely	0.7	0.82	0.15	0.09	0.2	-0.11

		Para-Social	Solitude	Product of Factor Loadings	predicted	obtained	error
<b>part of group</b>	around others	0.7	0.81	0.13	0.07	.06	0.02
	by yourself	0.7	0.81	0.13	0.07	.10	-0.02
	spent w/ friend	0.7	0.18	0.13	0.02	.06	-0.04
	spent w/ relatives	0.7	0.25	0.13	0.02	.05	-0.02
	spent w/ sig. other	0.7	0.37	0.13	0.03	.03	0.01
	spent alone	0.7	0.79	0.13	0.07	.11	-0.04
<b>comfortable, as if w/ friends</b>	around others	0.83	0.81	0.13	0.09	.02	0.07
	by yourself	0.83	0.81	0.13	0.09	.01	0.08
	spent w/ friend	0.83	0.18	0.13	0.02	.01	0.01
	spent w/ relatives	0.83	0.25	0.13	0.03	.03	0.00
	spent w/ sig. other	0.83	0.37	0.13	0.04	.04	0.00
	spent alone	0.83	0.79	0.13	0.09	-.01	0.09
<b>down to earth</b>	around others	0.61	0.81	0.13	0.06	.03	0.03
	by yourself	0.61	0.81	0.13	0.06	.06	0.01
	spent w/ friend	0.61	0.18	0.13	0.01	.00	0.02
	spent w/ relatives	0.61	0.25	0.13	0.02	-.01	0.03
	spent w/ sig. other	0.61	0.37	0.13	0.03	.12	-0.09
	spent alone	0.61	0.79	0.13	0.06	.00	0.07
<b>like old friends</b>	around others	0.7	0.81	0.13	0.07	.11	-0.04
	by yourself	0.7	0.81	0.13	0.07	.19	-0.12
	spent w/ friend	0.7	0.18	0.13	0.02	.01	0.01
	spent w/ relatives	0.7	0.25	0.13	0.02	-.01	0.03
	spent w/ sig. other	0.7	0.37	0.13	0.03	.03	0.00
	spent alone	0.7	0.79	0.13	0.07	.17	-0.09

		Para-Social	Loneliness	Product of Factor Loadings	predicted	obtained	error
part of group	in tune	0.7	0.57	0.07	0.03	-.01	0.03
	lacked companionship	0.7	0.64	0.07	0.03	.03	0.00
	no one to turn to	0.7	0.73	0.07	0.04	.04	-0.01
	part of group	0.7	0.52	0.07	0.03	.03	-0.01
	lots in common	0.7	0.69	0.07	0.03	-.03	0.07
	not close to anyone	0.7	0.74	0.07	0.04	.11	-0.07
	interests/ideas not shared	0.7	0.6	0.07	0.03	-.02	0.04
	close to people	0.7	0.65	0.07	0.03	.07	-0.04
	left out	0.7	0.72	0.07	0.04	.05	-0.01
	relationships not meaningful	0.7	0.72	0.07	0.04	.01	0.03
	no one really knew you	0.7	0.73	0.07	0.04	.05	-0.01
	isolated from others	0.7	0.73	0.07	0.04	.05	-0.01
	could find companionship whenever	0.7	0.56	0.07	0.03	-.01	0.04
	there were people who understood you	0.7	0.66	0.07	0.03	-.02	0.05
	people around, but not with you	0.7	0.49	0.07	0.02	.08	-0.06
	there were people to talk to	0.7	0.74	0.07	0.04	.08	-0.04
	there were people to turn to	0.7	0.74	0.07	0.04	.07	-0.04
comfortable, as if w/ friends	in tune	0.83	0.57	0.07	0.03	-.06	0.09
	lacked companionship	0.83	0.64	0.07	0.04	.05	-0.01
	no one to turn to	0.83	0.73	0.07	0.04	.04	0.01
	part of group	0.83	0.52	0.07	0.03	.03	0.00
	lots in common	0.83	0.69	0.07	0.04	-.10	0.14
	not close to anyone	0.83	0.74	0.07	0.04	.12	-0.08
	interests/ideas not shared	0.83	0.6	0.07	0.03	-.05	0.08
	close to people	0.83	0.65	0.07	0.04	.08	-0.04
	left out	0.83	0.72	0.07	0.04	-.01	0.05
	relationships not meaningful	0.83	0.72	0.07	0.04	-.02	0.06
	no one really knew you	0.83	0.73	0.07	0.04	.00	0.04
	isolated from others	0.83	0.73	0.07	0.04	.03	0.01
	could find companionship whenever	0.83	0.56	0.07	0.03	.00	0.03
	there were people who understood you	0.83	0.66	0.07	0.04	-.07	0.11



	people around, but not with you	0.83	0.49	0.07	0.03	.03	0.00
	there were people to talk to	0.83	0.74	0.07	0.04	.02	0.02
	there were people to turn to	0.83	0.74	0.07	0.04	.02	0.03
down to earth	in tune	0.61	0.57	0.07	0.02	-.06	0.09
	lacked companionship	0.61	0.64	0.07	0.03	.11	-0.09
	no one to turn to	0.61	0.73	0.07	0.03	.09	-0.06
	part of group	0.61	0.52	0.07	0.02	-.01	0.04
	lots in common	0.61	0.69	0.07	0.03	-.07	0.10
	not close to anyone	0.61	0.74	0.07	0.03	.15	-0.12
	interests/ideas not shared	0.61	0.6	0.07	0.03	-.01	0.04
	close to people	0.61	0.65	0.07	0.03	.05	-0.02
	left out	0.61	0.72	0.07	0.03	.02	0.01
	relationships not meaningful	0.61	0.72	0.07	0.03	.05	-0.02
	no one really knew you	0.61	0.73	0.07	0.03	.05	-0.02
	isolated from others	0.61	0.73	0.07	0.03	.06	-0.03
	could find companionship whenever	0.61	0.56	0.07	0.02	.04	-0.01
	there were people who understood you	0.61	0.66	0.07	0.03	-.10	0.13
	people around, but not with you	0.61	0.49	0.07	0.02	.06	-0.04
	there were people to talk to	0.61	0.74	0.07	0.03	.04	-0.01
	there were people to turn to	0.61	0.74	0.07	0.03	.06	-0.02
like old friends	in tune	0.7	0.57	0.07	0.03	-.02	0.05
	lacked companionship	0.7	0.64	0.07	0.03	.08	-0.05
	no one to turn to	0.7	0.73	0.07	0.04	.07	-0.04
	part of group	0.7	0.52	0.07	0.03	.04	-0.02
	lots in common	0.7	0.69	0.07	0.03	-.02	0.06
	not close to anyone	0.7	0.74	0.07	0.04	.14	-0.11
	interests/ideas not shared	0.7	0.6	0.07	0.03	.06	-0.03
	close to people	0.7	0.65	0.07	0.03	.07	-0.03
	left out	0.7	0.72	0.07	0.04	.11	-0.07
	relationships not meaningful	0.7	0.72	0.07	0.04	.03	0.00
	no one really knew you	0.7	0.73	0.07	0.04	.04	0.00
	isolated from others	0.7	0.73	0.07	0.04	.15	-0.12
	could find companionship whenever	0.7	0.56	0.07	0.03	.03	0.00
	there were people who understood you	0.7	0.66	0.07	0.03	-.05	0.08

	people around, but not with you	0.7	0.49	0.07	0.02	.10	-0.07
	there were people to talk to	0.7	0.74	0.07	0.04	.04	-0.01
	there were people to turn to	0.7	0.74	0.07	0.04	.03	0.01

		Involvement	Pass Time	Product of Factor Loadings	predicted	obtained	error
important to watch fav shows	passed time away	0.79	0.67	0.13	0.07	0.04	0.03
	gave me something to do	0.79	0.83	0.13	0.09	0.1	-0.01
	bored	0.79	0.86	0.13	0.09	0.03	0.06
	nothing better to do	0.79	0.84	0.13	0.09	-0.01	0.10
daily routine	passed time away	0.7	0.67	0.13	0.06	0.18	-0.12
	gave me something to do	0.7	0.83	0.13	0.08	0.22	-0.14
	bored	0.7	0.86	0.13	0.08	0.14	-0.06
	nothing better to do	0.7	0.84	0.13	0.08	0.1	-0.02
get involved w/ stories	passed time away	0.77	0.67	0.13	0.07	0.12	-0.05
	gave me something to do	0.77	0.83	0.13	0.08	0.11	-0.03
	bored	0.77	0.86	0.13	0.09	0.09	0.00
	nothing better to do	0.77	0.84	0.13	0.08	0.01	0.07
couldn't wait to see what happened	passed time away	0.8	0.67	0.13	0.07	0	0.07
	gave me something to do	0.8	0.83	0.13	0.09	0.07	0.02
	bored	0.8	0.86	0.13	0.09	0	0.09
	nothing better to do	0.8	0.84	0.13	0.09	-0.04	0.13
like thinking about shows	passed time away	0.8	0.67	0.13	0.07	0.09	-0.02
	gave me something to do	0.8	0.83	0.13	0.09	0.15	-0.06
	bored	0.8	0.86	0.13	0.09	0.04	0.05
	nothing better to do	0.8	0.84	0.13	0.09	0.04	0.05
thought about as I watched	passed time away	0.68	0.67	0.13	0.06	0.12	-0.06
	gave me something to do	0.68	0.83	0.13	0.07	0.1	-0.03
	bored	0.68	0.86	0.13	0.08	0.07	0.01
	nothing better to do	0.68	0.84	0.13	0.07	0.07	0.00

		Involvement	Social Interaction	Product of Factor Loadings	predicted	obtained	error
important to watch fav shows	something to do w/ friends came over	0.79	0.7	0.35	0.19	0.11	0.08
	be w/ family/friends	0.79	0.42	0.35	0.12	0.12	0.00
	conversation topic	0.79	0.68	0.35	0.19	0.29	-0.10
	met new people	0.79	0.63	0.35	0.17	0.12	0.05
daily routine	something to do w/ friends came over	0.7	0.7	0.35	0.17	0.11	0.06
	be w/ family/friends	0.7	0.42	0.35	0.10	0.08	0.02
	conversation topic	0.7	0.68	0.35	0.17	0.21	-0.04
	met new people	0.7	0.63	0.35	0.15	0.15	0.00
get involved w/ stories	something to do w/ friends came over	0.77	0.7	0.35	0.19	0.16	0.03
	be w/ family/friends	0.77	0.42	0.35	0.11	0.08	0.03
	conversation topic	0.77	0.68	0.35	0.18	0.23	-0.05
	met new people	0.77	0.63	0.35	0.17	0.09	0.08
couldn't wait to see what happened	something to do w/ friends came over	0.8	0.7	0.35	0.20	0.16	0.04
	be w/ family/friends	0.8	0.42	0.35	0.12	0.07	0.05
	conversation topic	0.8	0.68	0.35	0.19	0.27	-0.08
	met new people	0.8	0.63	0.35	0.18	0.09	0.09
like thinking about shows	something to do w/ friends came over	0.8	0.7	0.35	0.20	0.23	-0.03
	be w/ family/friends	0.8	0.42	0.35	0.12	0.15	-0.03
	conversation topic	0.8	0.68	0.35	0.19	0.31	-0.12
	met new people	0.8	0.63	0.35	0.18	0.1	0.08
thought about as I watched	something to do w/ friends came over	0.68	0.7	0.35	0.17	0.21	-0.04
	be w/ family/friends	0.68	0.42	0.35	0.10	0.13	-0.03
	conversation topic	0.68	0.68	0.35	0.16	0.27	-0.11
	met new people	0.68	0.63	0.35	0.15	0.1	0.05

		Involvement	Escapism	Product of Factor Loadings	predicted	obtained	error
important to watch fav shows	forget school/homework	0.79	0.68	0.41	0.22	0.22	0.00
	get away from what I was doing	0.79	0.77	0.41	0.25	0.2	0.05
	took mind off things	0.79	0.87	0.41	0.28	0.24	0.04
	escape everyday life	0.79	0.59	0.41	0.19	0.29	-0.10
daily routine	forget school/homework	0.7	0.68	0.41	0.20	0.22	-0.02
	get away from what I was doing	0.7	0.77	0.41	0.22	0.17	0.05
	took mind off things	0.7	0.87	0.41	0.25	0.23	0.02
	escape everyday life	0.7	0.59	0.41	0.17	0.28	-0.11
get involved w/ stories	forget school/homework	0.77	0.68	0.41	0.21	0.2	0.01
	get away from what I was doing	0.77	0.77	0.41	0.24	0.25	-0.01
	took mind off things	0.77	0.87	0.41	0.27	0.31	-0.04
	escape everyday life	0.77	0.59	0.41	0.19	0.27	-0.08
couldn't wait to see what happened	forget school/homework	0.8	0.68	0.41	0.22	0.17	0.05
	get away from what I was doing	0.8	0.77	0.41	0.25	0.19	0.06
	took mind off things	0.8	0.87	0.41	0.29	0.23	0.06
	escape everyday life	0.8	0.59	0.41	0.19	0.25	-0.06
like thinking about shows	forget school/homework	0.8	0.68	0.41	0.22	0.2	0.02
	get away from what I was doing	0.8	0.77	0.41	0.25	0.17	0.08
	took mind off things	0.8	0.87	0.41	0.29	0.26	0.03
	escape everyday life	0.8	0.59	0.41	0.19	0.29	-0.10
thought about as I watched	forget school/homework	0.68	0.68	0.41	0.19	0.19	0.00
	get away from what I was doing	0.68	0.77	0.41	0.21	0.2	0.01
	took mind off things	0.68	0.87	0.41	0.24	0.19	0.05
	escape everyday life	0.68	0.59	0.41	0.16	0.23	-0.07

		Involvement	Companionship	Product of Factor Loadings	predicted	obtained	error
important to watch fav shows	so I wasn't alone	0.79	0.82	0.21	0.14	0.13	0.01
	no one to talk to	0.79	0.66	0.21	0.11	-0.02	0.13
	feel less lonely	0.79	0.82	0.21	0.14	0.17	-0.03
daily routine	so I wasn't alone	0.7	0.82	0.21	0.12	0.2	-0.08
	no one to talk to	0.7	0.66	0.21	0.10	0.07	0.03
	feel less lonely	0.7	0.82	0.21	0.12	0.28	-0.16
get involved w/ stories	so I wasn't alone	0.77	0.82	0.21	0.13	0.11	0.02
	no one to talk to	0.77	0.66	0.21	0.11	0.07	0.04
	feel less lonely	0.77	0.82	0.21	0.13	0.15	-0.02
couldn't wait to see what happened	so I wasn't alone	0.8	0.82	0.21	0.14	0.1	0.04
	no one to talk to	0.8	0.66	0.21	0.11	-0.04	0.15
	feel less lonely	0.8	0.82	0.21	0.14	0.1	0.04
like thinking about shows	so I wasn't alone	0.8	0.82	0.21	0.14	0.17	-0.03
	no one to talk to	0.8	0.66	0.21	0.11	0.08	0.03
	feel less lonely	0.8	0.82	0.21	0.14	0.22	-0.08
thought about as I watched	so I wasn't alone	0.68	0.82	0.21	0.12	0.15	-0.03
	no one to talk to	0.68	0.66	0.21	0.09	0.11	-0.02
	feel less lonely	0.68	0.82	0.21	0.12	0.18	-0.06

		Involvement	Solitude	Product of Factor Loadings	predicted	obtained	error
important to watch fav shows	around others	0.79	0.81	0.14	0.09	.11	-0.02
	by yourself	0.79	0.81	0.14	0.09	.16	-0.07
	spent w/ friend	0.79	0.18	0.14	0.02	.13	-0.11
	spent w/ relatives	0.79	0.25	0.14	0.03	.04	-0.01
	spent w/ sig. other	0.79	0.37	0.14	0.04	-.05	0.09
	spent alone	0.79	0.79	0.14	0.09	.22	-0.13
daily routine	around others	0.7	0.81	0.14	0.08	.13	-0.05
	by yourself	0.7	0.81	0.14	0.08	.16	-0.08
	spent w/ friend	0.7	0.18	0.14	0.02	.14	-0.13
	spent w/ relatives	0.7	0.25	0.14	0.02	.01	0.01
	spent w/ sig. other	0.7	0.37	0.14	0.04	-.02	0.06
	spent alone	0.7	0.79	0.14	0.08	.19	-0.12
get involved w/ stories	around others	0.77	0.81	0.14	0.09	-.03	0.11
	by yourself	0.77	0.81	0.14	0.09	.09	-0.01
	spent w/ friend	0.77	0.18	0.14	0.02	.04	-0.02
	spent w/ relatives	0.77	0.25	0.14	0.03	-.01	0.03
	spent w/ sig. other	0.77	0.37	0.14	0.04	-.09	0.13
	spent alone	0.77	0.79	0.14	0.09	.10	-0.01
couldn't wait to see what happened	around others	0.8	0.81	0.14	0.09	.03	0.06
	by yourself	0.8	0.81	0.14	0.09	.12	-0.03
	spent w/ friend	0.8	0.18	0.14	0.02	.04	-0.02
	spent w/ relatives	0.8	0.25	0.14	0.03	.03	0.00
	spent w/ sig. other	0.8	0.37	0.14	0.04	-.06	0.11
	spent alone	0.8	0.79	0.14	0.09	.12	-0.03
like thinking about shows	around others	0.8	0.81	0.14	0.09	.00	0.09
	by yourself	0.8	0.81	0.14	0.09	.02	0.07
	spent w/ friend	0.8	0.18	0.14	0.02	-.02	0.04
	spent w/ relatives	0.8	0.25	0.14	0.03	.05	-0.02
	spent w/ sig. other	0.8	0.37	0.14	0.04	.00	0.04
	spent alone	0.8	0.79	0.14	0.09	.08	0.01
thought about as I watched	around others	0.68	0.81	0.14	0.08	.04	0.04
	by yourself	0.68	0.81	0.14	0.08	.09	-0.01
	spent w/ friend	0.68	0.18	0.14	0.02	-.01	0.02
	spent w/ relatives	0.68	0.25	0.14	0.02	.09	-0.07
	spent w/ sig. other	0.68	0.37	0.14	0.04	.01	0.02
	spent alone	0.68	0.79	0.14	0.08	.09	-0.02

		Involvement	Loneliness	Product of Factor Loadings	predicted	obtained	error
important to watch fav shows	in tune	0.79	0.57	0.09	0.04	.02	0.02
	lacked companionship	0.79	0.64	0.09	0.05	.01	0.04
	no one to turn to	0.79	0.73	0.09	0.05	-.07	0.12
	part of group	0.79	0.52	0.09	0.04	.09	-0.05
	lots in common	0.79	0.69	0.09	0.05	.02	0.03
	not close to anyone	0.79	0.74	0.09	0.05	.04	0.02
	interests/ideas not shared	0.79	0.6	0.09	0.04	.03	0.01
	close to people	0.79	0.65	0.09	0.05	.02	0.02
	left out	0.79	0.72	0.09	0.05	.02	0.03
	relationships not meaningful	0.79	0.72	0.09	0.05	-.05	0.10
	no one really knew you	0.79	0.73	0.09	0.05	-.09	0.14
	isolated from others	0.79	0.73	0.09	0.05	.04	0.01
	could find companionship whenever	0.79	0.56	0.09	0.04	.07	-0.03
	there were people who understood you	0.79	0.66	0.09	0.05	-.03	0.08
	people around, but not with you	0.79	0.49	0.09	0.03	.13	-0.09
	there were people to talk to	0.79	0.74	0.09	0.05	.02	0.03
	there were people to turn to	0.79	0.74	0.09	0.05	.05	0.01
daily routine	in tune	0.7	0.57	0.09	0.04	.13	-0.09
	lacked companionship	0.7	0.64	0.09	0.04	.10	-0.06
	no one to turn to	0.7	0.73	0.09	0.05	.04	0.01
	part of group	0.7	0.52	0.09	0.03	.17	-0.14
	lots in common	0.7	0.69	0.09	0.04	.11	-0.07
	not close to anyone	0.7	0.74	0.09	0.05	.10	-0.06
	interests/ideas not shared	0.7	0.6	0.09	0.04	.09	-0.06
	close to people	0.7	0.65	0.09	0.04	.13	-0.09
	left out	0.7	0.72	0.09	0.05	.16	-0.11
	relationships not meaningful	0.7	0.72	0.09	0.05	.05	-0.01
	no one really knew you	0.7	0.73	0.09	0.05	-.02	0.07
	isolated from others	0.7	0.73	0.09	0.05	.17	-0.12
	could find companionship whenever	0.7	0.56	0.09	0.04	.14	-0.10
	there were people who understood you	0.7	0.66	0.09	0.04	-.01	0.05
	people around, but not with you	0.7	0.49	0.09	0.03	.15	-0.12



	there were people to talk to	0.7	0.74	0.09	0.05	.10	-0.05
	there were people to turn to	0.7	0.74	0.09	0.05	.11	-0.07
get involved w/ stories	in tune	0.77	0.57	0.09	0.04	.04	0.00
	lacked companionship	0.77	0.64	0.09	0.04	.00	0.05
	no one to turn to	0.77	0.73	0.09	0.05	-.01	0.06
	part of group	0.77	0.52	0.09	0.04	.06	-0.02
	lots in common	0.77	0.69	0.09	0.05	.02	0.03
	not close to anyone	0.77	0.74	0.09	0.05	.04	0.02
	interests/ideas not shared	0.77	0.6	0.09	0.04	.01	0.03
	close to people	0.77	0.65	0.09	0.05	-.03	0.08
	left out	0.77	0.72	0.09	0.05	.05	0.00
	relationships not meaningful	0.77	0.72	0.09	0.05	-.04	0.09
	no one really knew you	0.77	0.73	0.09	0.05	-.05	0.10
	isolated from others	0.77	0.73	0.09	0.05	.07	-0.02
	could find companionship whenever	0.77	0.56	0.09	0.04	-.01	0.05
	there were people who understood you	0.77	0.66	0.09	0.05	-.12	0.17
	people around, but not with you	0.77	0.49	0.09	0.03	.11	-0.08
	there were people to talk to	0.77	0.74	0.09	0.05	-.04	0.09
	there were people to turn to	0.77	0.74	0.09	0.05	-.02	0.07
couldn't wait to see what happened	in tune	0.8	0.57	0.09	0.04	-.05	0.09
	lacked companionship	0.8	0.64	0.09	0.05	-.02	0.06
	no one to turn to	0.8	0.73	0.09	0.05	-.07	0.12
	part of group	0.8	0.52	0.09	0.04	.03	0.00
	lots in common	0.8	0.69	0.09	0.05	-.04	0.09
	not close to anyone	0.8	0.74	0.09	0.05	.00	0.05
	interests/ideas not shared	0.8	0.6	0.09	0.04	.07	-0.02
	close to people	0.8	0.65	0.09	0.05	-.05	0.10
	left out	0.8	0.72	0.09	0.05	-.04	0.09
	relationships not meaningful	0.8	0.72	0.09	0.05	-.05	0.11
	no one really knew you	0.8	0.73	0.09	0.05	-.06	0.11
	isolated from others	0.8	0.73	0.09	0.05	-.02	0.07
	could find companionship whenever	0.8	0.56	0.09	0.04	.04	0.00
	there were people who understood you	0.8	0.66	0.09	0.05	-.03	0.07

	people around, but not with you	0.8	0.49	0.09	0.04	.13	-0.09
	there were people to talk to	0.8	0.74	0.09	0.05	-.01	0.06
	there were people to turn to	0.8	0.74	0.09	0.05	.01	0.04
like thinking about shows	in tune	0.8	0.57	0.09	0.04	.06	-0.02
	lacked companionship	0.8	0.64	0.09	0.05	.13	-0.08
	no one to turn to	0.8	0.73	0.09	0.05	.05	0.00
	part of group	0.8	0.52	0.09	0.04	.09	-0.06
	lots in common	0.8	0.69	0.09	0.05	.04	0.01
	not close to anyone	0.8	0.74	0.09	0.05	.10	-0.05
	interests/ideas not shared	0.8	0.6	0.09	0.04	.05	0.00
	close to people	0.8	0.65	0.09	0.05	.04	0.01
	left out	0.8	0.72	0.09	0.05	.10	-0.04
	relationships not meaningful	0.8	0.72	0.09	0.05	.07	-0.01
	no one really knew you	0.8	0.73	0.09	0.05	.02	0.03
	isolated from others	0.8	0.73	0.09	0.05	.11	-0.06
	could find companionship whenever	0.8	0.56	0.09	0.04	.12	-0.08
	there were people who understood you	0.8	0.66	0.09	0.05	.04	0.01
	people around, but not with you	0.8	0.49	0.09	0.04	.13	-0.10
	there were people to talk to	0.8	0.74	0.09	0.05	.08	-0.02
	there were people to turn to	0.8	0.74	0.09	0.05	.08	-0.03
thought about as I watched	in tune	0.68	0.57	0.09	0.03	.04	-0.01
	lacked companionship	0.68	0.64	0.09	0.04	.13	-0.09
	no one to turn to	0.68	0.73	0.09	0.04	.08	-0.03
	part of group	0.68	0.52	0.09	0.03	.07	-0.04
	lots in common	0.68	0.69	0.09	0.04	.00	0.04
	not close to anyone	0.68	0.74	0.09	0.05	.06	-0.01
	interests/ideas not shared	0.68	0.6	0.09	0.04	.05	-0.01
	close to people	0.68	0.65	0.09	0.04	.02	0.02
	left out	0.68	0.72	0.09	0.04	.07	-0.03
	relationships not meaningful	0.68	0.72	0.09	0.04	.10	-0.06
	no one really knew you	0.68	0.73	0.09	0.04	.00	0.04
	isolated from others	0.68	0.73	0.09	0.04	.05	-0.01
	could find companionship whenever	0.68	0.56	0.09	0.03	.12	-0.08
	there were people who understood you	0.68	0.66	0.09	0.04	.10	-0.06

	people around, but not with you	0.68	0.49	0.09	0.03	.10	-0.07
	there were people to talk to	0.68	0.74	0.09	0.05	.07	-0.03
	there were people to turn to	0.68	0.74	0.09	0.05	.06	-0.02

		Pass Time	Social Interaction	Product of Factor Loadings	predicted	obtained	error
passed time away	something to do w/ friends came over	0.67	0.7	0.25	0.12	0.11	0.01
	be w/ family/friends	0.67	0.42	0.25	0.07	0.11	-0.04
	conversation topic	0.67	0.68	0.25	0.11	0.02	0.09
	met new people	0.67	0.63	0.25	0.11	0.05	0.06
gave me something to do	something to do w/ friends came over	0.83	0.7	0.25	0.15	0.24	-0.09
	be w/ family/friends	0.83	0.42	0.25	0.09	0.1	-0.01
	conversation topic	0.83	0.68	0.25	0.14	0.16	-0.02
	met new people	0.83	0.63	0.25	0.13	0.15	-0.02
bored	something to do w/ friends came over	0.86	0.7	0.25	0.15	0.29	-0.14
	be w/ family/friends	0.86	0.42	0.25	0.09	0.03	0.06
	conversation topic	0.86	0.68	0.25	0.15	0.18	-0.03
	met new people	0.86	0.63	0.25	0.14	0.11	0.03
nothing better to do	something to do w/ friends came over	0.84	0.7	0.25	0.15	0.19	-0.04
	be w/ family/friends	0.84	0.42	0.25	0.09	0.08	0.01
	conversation topic	0.84	0.68	0.25	0.14	0.09	0.05
	met new people	0.84	0.63	0.25	0.13	0.07	0.06

		Pass Time	Escapism	Product of Factor Loadings	predicted	obtained	error
passed time away	forget school/homework	0.67	0.68	0.28	0.13	0.15	-0.02
	get away from what I was doing	0.67	0.77	0.28	0.14	0.11	0.03
	took mind off things	0.67	0.87	0.28	0.16	0.17	-0.01
	escape everyday life	0.67	0.59	0.28	0.11	0.21	-0.10
gave me something to do	forget school/homework	0.83	0.68	0.28	0.16	0.26	-0.10
	get away from what I was doing	0.83	0.77	0.28	0.18	0.19	-0.01
	took mind off things	0.83	0.87	0.28	0.20	0.22	-0.02
	escape everyday life	0.83	0.59	0.28	0.14	0.2	-0.06
bored	forget school/homework	0.86	0.68	0.28	0.16	0.19	-0.03
	get away from what I was doing	0.86	0.77	0.28	0.19	0.18	0.01
	took mind off things	0.86	0.87	0.28	0.21	0.14	0.07
	escape everyday life	0.86	0.59	0.28	0.14	0.16	-0.02
nothing better to do	forget school/homework	0.84	0.68	0.28	0.16	0.14	0.02
	get away from what I was doing	0.84	0.77	0.28	0.18	0.08	0.10
	took mind off things	0.84	0.87	0.28	0.20	0.09	0.11
	escape everyday life	0.84	0.59	0.28	0.14	0.12	0.02

		Pass Time	Companio nship	Product of Factor Loadings	predicted	obtained	error
passed time away	so I wasn't alone	0.67	0.82	0.39	0.21	0.18	0.03
	no one to talk to	0.67	0.66	0.39	0.17	0.23	-0.06
	feel less lonely	0.67	0.82	0.39	0.21	0.25	-0.04
gave me something to do	so I wasn't alone	0.83	0.82	0.39	0.27	0.22	0.05
	no one to talk to	0.83	0.66	0.39	0.21	0.23	-0.02
	feel less lonely	0.83	0.82	0.39	0.27	0.27	0.00
bored	so I wasn't alone	0.86	0.82	0.39	0.28	0.24	0.04
	no one to talk to	0.86	0.66	0.39	0.22	0.28	-0.06
	feel less lonely	0.86	0.82	0.39	0.28	0.28	0.00
nothing better to do	so I wasn't alone	0.84	0.82	0.39	0.27	0.21	0.06
	no one to talk to	0.84	0.66	0.39	0.22	0.23	-0.01
	feel less lonely	0.84	0.82	0.39	0.27	0.22	0.05

		Pass Time	Solitude	Product of Factor Loadings	predicted	obtained	error
<b>passed time away</b>	around others	0.67	0.81	0.19	0.10	.22	-0.12
	by yourself	0.67	0.81	0.19	0.10	.18	-0.08
	spent w/ friend	0.67	0.18	0.19	0.02	.01	0.01
	spent w/ relatives	0.67	0.25	0.19	0.03	-.03	0.06
	spent w/ sig. other	0.67	0.37	0.19	0.05	.09	-0.04
	spent alone	0.67	0.79	0.19	0.10	.16	-0.06
<b>gave me something to do</b>	around others	0.83	0.81	0.19	0.13	.14	-0.01
	by yourself	0.83	0.81	0.19	0.13	.08	0.04
	spent w/ friend	0.83	0.18	0.19	0.03	-.09	0.12
	spent w/ relatives	0.83	0.25	0.19	0.04	-.01	0.05
	spent w/ sig. other	0.83	0.37	0.19	0.06	.07	-0.02
	spent alone	0.83	0.79	0.19	0.12	.18	-0.05
<b>bored</b>	around others	0.86	0.81	0.19	0.13	.18	-0.04
	by yourself	0.86	0.81	0.19	0.13	.13	0.00
	spent w/ friend	0.86	0.18	0.19	0.03	-.08	0.11
	spent w/ relatives	0.86	0.25	0.19	0.04	-.01	0.05
	spent w/ sig. other	0.86	0.37	0.19	0.06	.12	-0.06
	spent alone	0.86	0.79	0.19	0.13	.22	-0.10
<b>nothing better to do</b>	around others	0.84	0.81	0.19	0.13	.14	-0.01
	by yourself	0.84	0.81	0.19	0.13	.10	0.03
	spent w/ friend	0.84	0.18	0.19	0.03	-.13	0.16
	spent w/ relatives	0.84	0.25	0.19	0.04	.02	0.02
	spent w/ sig. other	0.84	0.37	0.19	0.06	.07	-0.01
	spent alone	0.84	0.79	0.19	0.13	.17	-0.05

		Pass Time	Loneliness	Product of Factor Loadings	predicted	obtained	error
passed time away	in tune	0.67	0.57	0.19	0.07	.08	-0.01
	lacked companionship	0.67	0.64	0.19	0.08	.09	-0.01
	no one to turn to	0.67	0.73	0.19	0.09	.16	-0.07
	part of group	0.67	0.52	0.19	0.07	.08	-0.01
	lots in common	0.67	0.69	0.19	0.09	.12	-0.03
	not close to anyone	0.67	0.74	0.19	0.09	.13	-0.03
	interests/ideas not shared	0.67	0.6	0.19	0.08	.07	0.01
	close to people	0.67	0.65	0.19	0.08	.07	0.02
	left out	0.67	0.72	0.19	0.09	.15	-0.06
	relationships not meaningful	0.67	0.72	0.19	0.09	.09	0.00
	no one really knew you	0.67	0.73	0.19	0.09	.06	0.03
	isolated from others	0.67	0.73	0.19	0.09	.19	-0.09
	could find companionship whenever	0.67	0.56	0.19	0.07	.08	-0.01
	there were people who understood you	0.67	0.66	0.19	0.08	.07	0.01
	people around, but not with you	0.67	0.49	0.19	0.06	.10	-0.03
	there were people to talk to	0.67	0.74	0.19	0.09	.12	-0.03
	there were people to turn to	0.67	0.74	0.19	0.09	.15	-0.05
gave me something to do	in tune	0.83	0.57	0.19	0.09	.01	0.08
	lacked companionship	0.83	0.64	0.19	0.10	.12	-0.02
	no one to turn to	0.83	0.73	0.19	0.12	.17	-0.05
	part of group	0.83	0.52	0.19	0.08	.07	0.02
	lots in common	0.83	0.69	0.19	0.11	.08	0.03
	not close to anyone	0.83	0.74	0.19	0.12	.16	-0.05
	interests/ideas not shared	0.83	0.6	0.19	0.09	.11	-0.01
	close to people	0.83	0.65	0.19	0.10	.10	0.01
	left out	0.83	0.72	0.19	0.11	.11	0.00
	relationships not meaningful	0.83	0.72	0.19	0.11	.15	-0.04
	no one really knew you	0.83	0.73	0.19	0.12	.10	0.01
	isolated from others	0.83	0.73	0.19	0.12	.15	-0.04
	could find companionship whenever	0.83	0.56	0.19	0.09	.08	0.01
	there were people who understood you	0.83	0.66	0.19	0.10	.04	0.07



	people around, but not with you	0.83	0.49	0.19	0.08	.11	-0.03
	there were people to talk to	0.83	0.74	0.19	0.12	.04	0.07
	there were people to turn to	0.83	0.74	0.19	0.12	.08	0.03
bored	in tune	0.86	0.57	0.19	0.09	.06	0.03
	lacked companionship	0.86	0.64	0.19	0.10	.17	-0.07
	no one to turn to	0.86	0.73	0.19	0.12	.18	-0.06
	part of group	0.86	0.52	0.19	0.08	.03	0.05
	lots in common	0.86	0.69	0.19	0.11	.08	0.03
	not close to anyone	0.86	0.74	0.19	0.12	.20	-0.08
	interests/ideas not shared	0.86	0.6	0.19	0.10	.16	-0.07
	close to people	0.86	0.65	0.19	0.11	.10	0.01
	left out	0.86	0.72	0.19	0.12	.18	-0.06
	relationships not meaningful	0.86	0.72	0.19	0.12	.15	-0.03
	no one really knew you	0.86	0.73	0.19	0.12	.13	-0.01
	isolated from others	0.86	0.73	0.19	0.12	.20	-0.08
	could find companionship whenever	0.86	0.56	0.19	0.09	.10	-0.01
	there were people who understood you	0.86	0.66	0.19	0.11	.00	0.11
	people around, but not with you	0.86	0.49	0.19	0.08	.09	-0.01
	there were people to talk to	0.86	0.74	0.19	0.12	.06	0.06
	there were people to turn to	0.86	0.74	0.19	0.12	.06	0.06
passed time away	in tune	0.84	0.57	0.19	0.09	.05	0.04
	lacked companionship	0.84	0.64	0.19	0.10	.16	-0.06
	no one to turn to	0.84	0.73	0.19	0.12	.13	-0.01
	part of group	0.84	0.52	0.19	0.08	.05	0.04
	lots in common	0.84	0.69	0.19	0.11	.04	0.07
	not close to anyone	0.84	0.74	0.19	0.12	.14	-0.02
	interests/ideas not shared	0.84	0.6	0.19	0.10	.12	-0.02
	close to people	0.84	0.65	0.19	0.10	.02	0.09
	left out	0.84	0.72	0.19	0.11	.14	-0.02
	relationships not meaningful	0.84	0.72	0.19	0.11	.15	-0.04
	no one really knew you	0.84	0.73	0.19	0.12	.13	-0.01
	isolated from others	0.84	0.73	0.19	0.12	.14	-0.03
	could find companionship whenever	0.84	0.56	0.19	0.09	.12	-0.03
	there were people who understood you	0.84	0.66	0.19	0.11	-.01	0.11

	people around, but not with you	0.84	0.49	0.19	0.08	.10	-0.02
	there were people to talk to	0.84	0.74	0.19	0.12	.03	0.09
	there were people to turn to	0.84	0.74	0.19	0.12	.05	0.07

		Social Interaction	Escapism	Product of Factor Loadings	predicted	obtained	error
something to do w/ friends came over	forget school/homework	0.7	0.68	0.32	0.15	0.11	0.04
	get away from what I was doing	0.7	0.77	0.32	0.17	0.11	0.06
	took mind off things	0.7	0.87	0.32	0.19	0.04	0.15
	escape everyday life	0.7	0.59	0.32	0.13	0.04	0.09
be w/ family/friends	forget school/homework	0.42	0.68	0.32	0.09	0.14	-0.05
	get away from what I was doing	0.42	0.77	0.32	0.10	0.07	0.03
	took mind off things	0.42	0.87	0.32	0.12	0.15	-0.03
	escape everyday life	0.42	0.59	0.32	0.08	0.17	-0.09
conversation topic	forget school/homework	0.68	0.68	0.32	0.15	0.21	-0.06
	get away from what I was doing	0.68	0.77	0.32	0.17	0.13	0.04
	took mind off things	0.68	0.87	0.32	0.19	0.19	0.00
	escape everyday life	0.68	0.59	0.32	0.13	0.22	-0.09
met new people	forget school/homework	0.63	0.68	0.32	0.14	0.14	0.00
	get away from what I was doing	0.63	0.77	0.32	0.16	0.15	0.01
	took mind off things	0.63	0.87	0.32	0.18	0.15	0.03
	escape everyday life	0.63	0.59	0.32	0.12	0.21	-0.09

		Social Interaction	Companio nship	Product of Factor Loadings	predicted	obtained	error
something to do w/ friends came over	so I wasn't alone	0.7	0.82	0.57	0.33	0.21	0.12
	no one to talk to	0.7	0.66	0.57	0.26	0.21	0.05
	feel less lonely	0.7	0.82	0.57	0.33	0.22	0.11
be w/ family/friends	so I wasn't alone	0.42	0.82	0.57	0.20	0.16	0.04
	no one to talk to	0.42	0.66	0.57	0.16	0.11	0.05
	feel less lonely	0.42	0.82	0.57	0.20	0.18	0.02
conversation topic	so I wasn't alone	0.68	0.82	0.57	0.32	0.36	-0.04
	no one to talk to	0.68	0.66	0.57	0.26	0.35	-0.09
	feel less lonely	0.68	0.82	0.57	0.32	0.33	-0.01
met new people	so I wasn't alone	0.63	0.82	0.57	0.29	0.34	-0.05
	no one to talk to	0.63	0.66	0.57	0.24	0.33	-0.09
	feel less lonely	0.63	0.82	0.57	0.29	0.38	-0.09

		Social Interaction	Solitude	Product of Factor Loadings	predicted	obtained	error
something to do w/ friends came over	around others	0.7	0.81	-0.12	-0.07	.01	-0.08
	by yourself	0.7	0.81	-0.12	-0.07	.02	-0.09
	spent w/ friend	0.7	0.18	-0.12	-0.02	-.27	0.26
	spent w/ relatives	0.7	0.25	-0.12	-0.02	.01	-0.03
	spent w/ sig. other	0.7	0.37	-0.12	-0.03	.00	-0.03
	spent alone	0.7	0.79	-0.12	-0.07	.09	-0.16
be w/ family/friends	around others	0.42	0.81	-0.12	-0.04	-.18	0.14
	by yourself	0.42	0.81	-0.12	-0.04	-.15	0.11
	spent w/ friend	0.42	0.18	-0.12	-0.01	-.11	0.11
	spent w/ relatives	0.42	0.25	-0.12	-0.01	-.08	0.07
	spent w/ sig. other	0.42	0.37	-0.12	-0.02	-.01	-0.01
	spent alone	0.42	0.79	-0.12	-0.04	-.09	0.05
conversation topic	around others	0.68	0.81	-0.12	-0.07	-.01	-0.06
	by yourself	0.68	0.81	-0.12	-0.07	-.08	0.02
	spent w/ friend	0.68	0.18	-0.12	-0.01	-.13	0.12
	spent w/ relatives	0.68	0.25	-0.12	-0.02	.05	-0.07
	spent w/ sig. other	0.68	0.37	-0.12	-0.03	-.06	0.03
	spent alone	0.68	0.79	-0.12	-0.06	-.02	-0.04
met new people	around others	0.63	0.81	-0.12	-0.06	.06	-0.12
	by yourself	0.63	0.81	-0.12	-0.06	.01	-0.07
	spent w/ friend	0.63	0.18	-0.12	-0.01	-.05	0.04
	spent w/ relatives	0.63	0.25	-0.12	-0.02	.04	-0.06
	spent w/ sig. other	0.63	0.37	-0.12	-0.03	-.01	-0.02
	spent alone	0.63	0.79	-0.12	-0.06	.03	-0.09

		Social Interaction	Loneliness	Product of Factor Loadings	predicted	obtained	error
something to do w/ friends came over	in tune	0.7	0.57	0.11	0.04	.03	0.01
	lacked companionship	0.7	0.64	0.11	0.05	.09	-0.04
	no one to turn to	0.7	0.73	0.11	0.06	.02	0.03
	part of group	0.7	0.52	0.11	0.04	-.08	0.12
	lots in common	0.7	0.69	0.11	0.05	-.05	0.10
	not close to anyone	0.7	0.74	0.11	0.06	-.02	0.08
	interests/ideas not shared	0.7	0.6	0.11	0.05	.01	0.04
	close to people	0.7	0.65	0.11	0.05	-.05	0.10
	left out	0.7	0.72	0.11	0.06	.11	-0.05
	relationships not meaningful	0.7	0.72	0.11	0.06	.06	0.00
	no one really knew you	0.7	0.73	0.11	0.06	.01	0.05
	isolated from others	0.7	0.73	0.11	0.06	.02	0.04
	could find companionship whenever	0.7	0.56	0.11	0.04	.11	-0.07
	there were people who understood you	0.7	0.66	0.11	0.05	.02	0.03
	people around, but not with you	0.7	0.49	0.11	0.04	.10	-0.06
	there were people to talk to	0.7	0.74	0.11	0.06	-.09	0.15
	there were people to turn to	0.7	0.74	0.11	0.06	-.10	0.16
be w/ family/friends	in tune	0.42	0.57	0.11	0.03	-.06	0.08
	lacked companionship	0.42	0.64	0.11	0.03	-.03	0.06
	no one to turn to	0.42	0.73	0.11	0.03	-.03	0.06
	part of group	0.42	0.52	0.11	0.02	-.07	0.10
	lots in common	0.42	0.69	0.11	0.03	-.10	0.13
	not close to anyone	0.42	0.74	0.11	0.03	-.08	0.12
	interests/ideas not shared	0.42	0.6	0.11	0.03	-.03	0.06
	close to people	0.42	0.65	0.11	0.03	-.10	0.13
	left out	0.42	0.72	0.11	0.03	.01	0.02
	relationships not meaningful	0.42	0.72	0.11	0.03	-.05	0.08
	no one really knew you	0.42	0.73	0.11	0.03	-.13	0.16
	isolated from others	0.42	0.73	0.11	0.03	-.07	0.10
	could find companionship whenever	0.42	0.56	0.11	0.03	.07	-0.05

	there were people who understood you	0.42	0.66	0.11	0.03	-.02	0.05
	people around, but not with you	0.42	0.49	0.11	0.02	-.01	0.04
	there were people to talk to	0.42	0.74	0.11	0.03	-.01	0.05
	there were people to turn to	0.42	0.74	0.11	0.03	-.04	0.08
conversation topic	in tune	0.68	0.57	0.11	0.04	.03	0.02
	lacked companionship	0.68	0.64	0.11	0.05	.16	-0.11
	no one to turn to	0.68	0.73	0.11	0.05	.10	-0.05
	part of group	0.68	0.52	0.11	0.04	.05	-0.01
	lots in common	0.68	0.69	0.11	0.05	.04	0.01
	not close to anyone	0.68	0.74	0.11	0.06	.10	-0.04
	interests/ideas not shared	0.68	0.6	0.11	0.04	.17	-0.12
	close to people	0.68	0.65	0.11	0.05	.08	-0.03
	left out	0.68	0.72	0.11	0.05	.21	-0.15
	relationships not meaningful	0.68	0.72	0.11	0.05	.14	-0.09
	no one really knew you	0.68	0.73	0.11	0.05	.04	0.02
	isolated from others	0.68	0.73	0.11	0.05	.15	-0.09
	could find companionship whenever	0.68	0.56	0.11	0.04	.14	-0.10
	there were people who understood you	0.68	0.66	0.11	0.05	.01	0.04
	people around, but not with you	0.68	0.49	0.11	0.04	.20	-0.17
	there were people to talk to	0.68	0.74	0.11	0.06	.04	0.02
	there were people to turn to	0.68	0.74	0.11	0.06	.03	0.02
met new people	in tune	0.63	0.57	0.11	0.04	.06	-0.02
	lacked companionship	0.63	0.64	0.11	0.04	.17	-0.12
	no one to turn to	0.63	0.73	0.11	0.05	.12	-0.07
	part of group	0.63	0.52	0.11	0.04	.07	-0.03
	lots in common	0.63	0.69	0.11	0.05	.13	-0.08
	not close to anyone	0.63	0.74	0.11	0.05	.11	-0.06
	interests/ideas not shared	0.63	0.6	0.11	0.04	.10	-0.06
	close to people	0.63	0.65	0.11	0.05	.12	-0.08
	left out	0.63	0.72	0.11	0.05	.18	-0.13
	relationships not meaningful	0.63	0.72	0.11	0.05	.15	-0.10
	no one really knew you	0.63	0.73	0.11	0.05	.10	-0.04
	isolated from others	0.63	0.73	0.11	0.05	.16	-0.11
	could find companionship whenever	0.63	0.56	0.11	0.04	.09	-0.05

	there were people who understood you	0.63	0.66	0.11	0.05	.05	0.00
	people around, but not with you	0.63	0.49	0.11	0.03	.11	-0.07
	there were people to talk to	0.63	0.74	0.11	0.05	.09	-0.03
	there were people to turn to	0.63	0.74	0.11	0.05	.06	-0.01



		Escapism	Companio nship	Product offFactor Loadings	predicted	obtained	error
forget school/homewo rk	so I wasn't alone	0.68	0.82	0.56	0.31	0.3	0.01
	no one to talk to	0.68	0.66	0.56	0.25	0.25	0.00
	feel less lonely	0.68	0.82	0.56	0.31	0.35	-0.04
get away from what I was doing	so I wasn't alone	0.77	0.82	0.56	0.35	0.34	0.01
	no one to talk to	0.77	0.66	0.56	0.28	0.23	0.05
	feel less lonely	0.77	0.82	0.56	0.35	0.36	-0.01
took mind off things	so I wasn't alone	0.87	0.82	0.56	0.40	0.31	0.09
	no one to talk to	0.87	0.66	0.56	0.32	0.24	0.08
	feel less lonely	0.87	0.82	0.56	0.40	0.36	0.04
escape everyday life	so I wasn't alone	0.59	0.82	0.56	0.27	0.32	-0.05
	no one to talk to	0.59	0.66	0.56	0.22	0.27	-0.05
	feel less lonely	0.59	0.82	0.56	0.27	0.4	-0.13

		Escapism	Solitude	Product of Factor Loadings	predicted	obtained	error
forget school/homework	around others	0.68	0.81	0.07	0.04	-.03	0.07
	by yourself	0.68	0.81	0.07	0.04	-.05	0.09
	spent w/ friend	0.68	0.18	0.07	0.01	-.02	0.03
	spent w/ relatives	0.68	0.25	0.07	0.01	.01	0.00
	spent w/ sig. other	0.68	0.37	0.07	0.02	.02	0.00
	spent alone	0.68	0.79	0.07	0.04	-.05	0.08
get away from what I was doing	around others	0.77	0.81	0.07	0.04	.05	-0.01
	by yourself	0.77	0.81	0.07	0.04	.07	-0.02
	spent w/ friend	0.77	0.18	0.07	0.01	-.03	0.04
	spent w/ relatives	0.77	0.25	0.07	0.01	.01	0.01
	spent w/ sig. other	0.77	0.37	0.07	0.02	.02	0.00
	spent alone	0.77	0.79	0.07	0.04	.09	-0.05
took mind off things	around others	0.87	0.81	0.07	0.05	.02	0.03
	by yourself	0.87	0.81	0.07	0.05	.05	0.00
	spent w/ friend	0.87	0.18	0.07	0.01	.04	-0.03
	spent w/ relatives	0.87	0.25	0.07	0.02	.02	0.00
	spent w/ sig. other	0.87	0.37	0.07	0.02	.04	-0.02
	spent alone	0.87	0.79	0.07	0.05	.03	0.01
escape everyday life	around others	0.59	0.81	0.07	0.03	.04	0.00
	by yourself	0.59	0.81	0.07	0.03	.12	-0.09
	spent w/ friend	0.59	0.18	0.07	0.01	.02	-0.02
	spent w/ relatives	0.59	0.25	0.07	0.01	.06	-0.05
	spent w/ sig. other	0.59	0.37	0.07	0.02	.01	0.00
	spent alone	0.59	0.79	0.07	0.03	.14	-0.11

		Escapism	Loneliness	Product of Factor Loadings	predicted	obtained	error
forget school/homework	in tune	0.68	0.57	0.24	0.09	-.01	0.11
	lacked companionship	0.68	0.64	0.24	0.10	.12	-0.02
	no one to turn to	0.68	0.73	0.24	0.12	.11	0.01
	part of group	0.68	0.52	0.24	0.08	.04	0.04
	lots in common	0.68	0.69	0.24	0.11	.02	0.09
	not close to anyone	0.68	0.74	0.24	0.12	.12	0.00
	interests/ideas not shared	0.68	0.6	0.24	0.10	.08	0.02
	close to people	0.68	0.65	0.24	0.11	.10	0.00
	left out	0.68	0.72	0.24	0.12	.12	0.00
	relationships not meaningful	0.68	0.72	0.24	0.12	.11	0.01
	no one really knew you	0.68	0.73	0.24	0.12	.00	0.12
	isolated from others	0.68	0.73	0.24	0.12	.12	0.00
	could find companionship whenever	0.68	0.56	0.24	0.09	.05	0.04
	there were people who understood you	0.68	0.66	0.24	0.11	.01	0.09
	people around, but not with you	0.68	0.49	0.24	0.08	.14	-0.06
	there were people to talk to	0.68	0.74	0.24	0.12	.07	0.05
	there were people to turn to	0.68	0.74	0.24	0.12	.07	0.05
get away from what I was doing	in tune	0.77	0.57	0.24	0.11	.11	0.00
	lacked companionship	0.77	0.64	0.24	0.12	.12	0.00
	no one to turn to	0.77	0.73	0.24	0.13	.14	-0.01
	part of group	0.77	0.52	0.24	0.10	.07	0.03
	lots in common	0.77	0.69	0.24	0.13	.14	-0.01
	not close to anyone	0.77	0.74	0.24	0.14	.20	-0.07
	interests/ideas not shared	0.77	0.6	0.24	0.11	.11	0.00
	close to people	0.77	0.65	0.24	0.12	.13	-0.01
	left out	0.77	0.72	0.24	0.13	.14	-0.01
	relationships not meaningful	0.77	0.72	0.24	0.13	.09	0.04
	no one really knew you	0.77	0.73	0.24	0.13	.05	0.08
	isolated from others	0.77	0.73	0.24	0.13	.17	-0.03
	could find companionship whenever	0.77	0.56	0.24	0.10	.05	0.05

	there were people who understood you	0.77	0.66	0.24	0.12	.05	0.07
	people around, but not with you	0.77	0.49	0.24	0.09	.16	-0.07
	there were people to talk to	0.77	0.74	0.24	0.14	.10	0.04
	there were people to turn to	0.77	0.74	0.24	0.14	.08	0.06
took mind off things	in tune	0.87	0.57	0.24	0.12	.08	0.04
	lacked companionship	0.87	0.64	0.24	0.13	.10	0.03
	no one to turn to	0.87	0.73	0.24	0.15	.12	0.03
	part of group	0.87	0.52	0.24	0.11	.11	0.00
	lots in common	0.87	0.69	0.24	0.14	.09	0.06
	not close to anyone	0.87	0.74	0.24	0.15	.17	-0.01
	interests/ideas not shared	0.87	0.6	0.24	0.13	.07	0.05
	close to people	0.87	0.65	0.24	0.14	.10	0.03
	left out	0.87	0.72	0.24	0.15	.15	0.00
	relationships not meaningful	0.87	0.72	0.24	0.15	.08	0.07
	no one really knew you	0.87	0.73	0.24	0.15	.07	0.09
	isolated from others	0.87	0.73	0.24	0.15	.22	-0.07
	could find companionship whenever	0.87	0.56	0.24	0.12	.07	0.04
	there were people who understood you	0.87	0.66	0.24	0.14	.05	0.08
	people around, but not with you	0.87	0.49	0.24	0.10	.10	0.00
	there were people to talk to	0.87	0.74	0.24	0.15	.07	0.09
	there were people to turn to	0.87	0.74	0.24	0.15	.09	0.06
escape everyday life	in tune	0.59	0.57	0.24	0.08	.08	0.00
	lacked companionship	0.59	0.64	0.24	0.09	.16	-0.07
	no one to turn to	0.59	0.73	0.24	0.10	.20	-0.10
	part of group	0.59	0.52	0.24	0.07	.12	-0.05
	lots in common	0.59	0.69	0.24	0.10	.08	0.02
	not close to anyone	0.59	0.74	0.24	0.10	.21	-0.10
	interests/ideas not shared	0.59	0.6	0.24	0.08	.13	-0.04
	close to people	0.59	0.65	0.24	0.09	.19	-0.10
	left out	0.59	0.72	0.24	0.10	.26	-0.16
	relationships not meaningful	0.59	0.72	0.24	0.10	.16	-0.06
	no one really knew you	0.59	0.73	0.24	0.10	.17	-0.06
	isolated from others	0.59	0.73	0.24	0.10	.26	-0.16
	could find companionship whenever	0.59	0.56	0.24	0.08	.10	-0.02

	there were people who understood you	0.59	0.66	0.24	0.09	.12	-0.02
	people around, but not with you	0.59	0.49	0.24	0.07	.16	-0.09
	there were people to talk to	0.59	0.74	0.24	0.10	.19	-0.08
	there were people to turn to	0.59	0.74	0.24	0.10	.19	-0.09

		Companio nship	Solitude	Product of Factor Loadings	predicted	obtained	error
so I wasn't alone	around others	0.82	0.81	0.17	0.11	.14	-0.03
	by yourself	0.82	0.81	0.17	0.11	.01	0.10
	spent w/ friend	0.82	0.18	0.17	0.03	-.01	0.03
	spent w/ relatives	0.82	0.25	0.17	0.03	.04	0.00
	spent w/ sig. other	0.82	0.37	0.17	0.05	.08	-0.02
	spent alone	0.82	0.79	0.17	0.11	.11	0.00
no one to talk to	around others	0.66	0.81	0.17	0.09	.07	0.02
	by yourself	0.66	0.81	0.17	0.09	.04	0.05
	spent w/ friend	0.66	0.18	0.17	0.02	.01	0.01
	spent w/ relatives	0.66	0.25	0.17	0.03	.11	-0.08
	spent w/ sig. other	0.66	0.37	0.17	0.04	-.02	0.06
	spent alone	0.66	0.79	0.17	0.09	.04	0.04
feel less lonely	around others	0.82	0.81	0.17	0.11	.15	-0.03
	by yourself	0.82	0.81	0.17	0.11	.12	0.00
	spent w/ friend	0.82	0.18	0.17	0.03	.06	-0.03
	spent w/ relatives	0.82	0.25	0.17	0.03	.06	-0.02
	spent w/ sig. other	0.82	0.37	0.17	0.05	.09	-0.04
	spent alone	0.82	0.79	0.17	0.11	.15	-0.04

		Companio nship	Loneliness	Product of Factor Loadings	predicted	obtained	error
so I wasn't alone	in tune	0.82	0.57	0.46	0.22	.26	-0.04
	lacked companionship	0.82	0.64	0.46	0.24	.35	-0.11
	no one to turn to	0.82	0.73	0.46	0.28	.19	0.08
	part of group	0.82	0.52	0.46	0.20	.20	-0.01
	lots in common	0.82	0.69	0.46	0.26	.28	-0.02
	not close to anyone	0.82	0.74	0.46	0.28	.23	0.04
	interests/ideas not shared	0.82	0.6	0.46	0.23	.18	0.04
	close to people	0.82	0.65	0.46	0.25	.18	0.07
	left out	0.82	0.72	0.46	0.27	.27	0.00
	relationships not meaningful	0.82	0.72	0.46	0.27	.19	0.09
	no one really knew you	0.82	0.73	0.46	0.28	.12	0.16
	isolated from others	0.82	0.73	0.46	0.28	.33	-0.06
	could find companionship whenever	0.82	0.56	0.46	0.21	.22	-0.01
	there were people who understood you	0.82	0.66	0.46	0.25	.15	0.10
	people around, but not with you	0.82	0.49	0.46	0.18	.17	0.01
	there were people to talk to	0.82	0.74	0.46	0.28	.20	0.08
	there were people to turn to	0.82	0.74	0.46	0.28	.21	0.07
no one to talk to	in tune	0.66	0.57	0.46	0.17	.19	-0.02
	lacked companionship	0.66	0.64	0.46	0.19	.22	-0.03
	no one to turn to	0.66	0.73	0.46	0.22	.32	-0.10
	part of group	0.66	0.52	0.46	0.16	.14	0.02
	lots in common	0.66	0.69	0.46	0.21	.23	-0.02
	not close to anyone	0.66	0.74	0.46	0.22	.20	0.03
	interests/ideas not shared	0.66	0.6	0.46	0.18	.14	0.04
	close to people	0.66	0.65	0.46	0.20	.16	0.04
	left out	0.66	0.72	0.46	0.22	.29	-0.07
	relationships not meaningful	0.66	0.72	0.46	0.22	.27	-0.05
	no one really knew you	0.66	0.73	0.46	0.22	.21	0.01
	isolated from others	0.66	0.73	0.46	0.22	.34	-0.11
	could find companionship whenever	0.66	0.56	0.46	0.17	.14	0.03
	there were people who understood you	0.66	0.66	0.46	0.20	.18	0.02
	people around, but not with you	0.66	0.49	0.46	0.15	.10	0.05

	there were people to talk to	0.66	0.74	0.46	0.22	.24	-0.01
	there were people to turn to	0.66	0.74	0.46	0.22	.24	-0.02
feel less lonely	in tune	0.82	0.57	0.46	0.22	.25	-0.03
	lacked companionship	0.82	0.64	0.46	0.24	.33	-0.08
	no one to turn to	0.82	0.73	0.46	0.28	.34	-0.06
	part of group	0.82	0.52	0.46	0.20	.29	-0.09
	lots in common	0.82	0.69	0.46	0.26	.25	0.01
	not close to anyone	0.82	0.74	0.46	0.28	.27	0.01
	interests/ideas not shared	0.82	0.6	0.46	0.23	.23	0.00
	close to people	0.82	0.65	0.46	0.25	.18	0.07
	left out	0.82	0.72	0.46	0.27	.37	-0.10
	relationships not meaningful	0.82	0.72	0.46	0.27	.22	0.05
	no one really knew you	0.82	0.73	0.46	0.28	.16	0.11
	isolated from others	0.82	0.73	0.46	0.28	.40	-0.12
	could find companionship whenever	0.82	0.56	0.46	0.21	.25	-0.04
	there were people who understood you	0.82	0.66	0.46	0.25	.19	0.06
	people around, but not with you	0.82	0.49	0.46	0.18	.27	-0.09
	there were people to talk to	0.82	0.74	0.46	0.28	.29	-0.01
	there were people to turn to	0.82	0.74	0.46	0.28	.28	0.00



		Solitude	Loneliness	Product of Factor Loadings	predicted	obtained	error
around others	in tune	0.81	0.57	0.48	0.22	.24	-0.02
	lacked companionship	0.81	0.64	0.48	0.25	.26	-0.01
	no one to turn to	0.81	0.73	0.48	0.28	.15	0.14
	part of group	0.81	0.52	0.48	0.20	.25	-0.05
	lots in common	0.81	0.69	0.48	0.27	.30	-0.04
	not close to anyone	0.81	0.74	0.48	0.29	.27	0.02
	interests/ideas not shared	0.81	0.6	0.48	0.23	.22	0.02
	close to people	0.81	0.65	0.48	0.25	.27	-0.02
	left out	0.81	0.72	0.48	0.28	.20	0.08
	relationships not meaningful	0.81	0.72	0.48	0.28	.16	0.12
	no one really knew you	0.81	0.73	0.48	0.28	.17	0.11
	isolated from others	0.81	0.73	0.48	0.28	.29	-0.01
	could find companionship whenever	0.81	0.56	0.48	0.22	.19	0.03
	there were people who understood you	0.81	0.66	0.48	0.26	.23	0.02
	people around, but not with you	0.81	0.49	0.48	0.19	.18	0.01
	there were people to talk to	0.81	0.74	0.48	0.29	.22	0.07
	there were people to turn to	0.81	0.74	0.48	0.29	.26	0.03
by yourself	in tune	0.81	0.57	0.48	0.22	.16	0.06
	lacked companionship	0.81	0.64	0.48	0.25	.19	0.06
	no one to turn to	0.81	0.73	0.48	0.28	.18	0.10
	part of group	0.81	0.52	0.48	0.20	.14	0.06
	lots in common	0.81	0.69	0.48	0.27	.18	0.09
	not close to anyone	0.81	0.74	0.48	0.29	.21	0.08
	interests/ideas not shared	0.81	0.6	0.48	0.23	.18	0.05
	close to people	0.81	0.65	0.48	0.25	.12	0.13
	left out	0.81	0.72	0.48	0.28	.21	0.07
	relationships not meaningful	0.81	0.72	0.48	0.28	.15	0.13
	no one really knew you	0.81	0.73	0.48	0.28	.15	0.14
	isolated from others	0.81	0.73	0.48	0.28	.26	0.03
	could find companionship whenever	0.81	0.56	0.48	0.22	.10	0.12
	there were people who understood you	0.81	0.66	0.48	0.26	.13	0.13
	people around, but not with you	0.81	0.49	0.48	0.19	.17	0.02
	there were people to	0.81	0.74	0.48	0.29	.15	0.14

	talk to						
	there were people to turn to	0.81	0.74	0.48	0.29	.16	0.13
spent w/ friend	in tune	0.18	0.57	0.48	0.05	.12	-0.07
	lacked companionship	0.18	0.64	0.48	0.06	.13	-0.07
	no one to turn to	0.18	0.73	0.48	0.06	.15	-0.09
	part of group	0.18	0.52	0.48	0.04	.46	-0.41
	lots in common	0.18	0.69	0.48	0.06	.35	-0.29
	not close to anyone	0.18	0.74	0.48	0.06	.15	-0.09
	interests/ideas not shared	0.18	0.6	0.48	0.05	.09	-0.03
	close to people	0.18	0.65	0.48	0.06	.20	-0.15
	left out	0.18	0.72	0.48	0.06	.12	-0.06
	relationships not meaningful	0.18	0.72	0.48	0.06	-.03	0.09
	no one really knew you	0.18	0.73	0.48	0.06	.09	-0.03
	isolated from others	0.18	0.73	0.48	0.06	.15	-0.08
	could find companionship whenever	0.18	0.56	0.48	0.05	.14	-0.09
	there were people who understood you	0.18	0.66	0.48	0.06	.17	-0.11
	people around, but not with you	0.18	0.49	0.48	0.04	.05	-0.01
	there were people to talk to	0.18	0.74	0.48	0.06	.28	-0.22
	there were people to turn to	0.18	0.74	0.48	0.06	.27	-0.21
spent w/ relatives	in tune	0.25	0.57	0.48	0.07	.11	-0.04
	lacked companionship	0.25	0.64	0.48	0.08	.16	-0.08
	no one to turn to	0.25	0.73	0.48	0.09	.15	-0.06
	part of group	0.25	0.52	0.48	0.06	.08	-0.02
	lots in common	0.25	0.69	0.48	0.08	.13	-0.04
	not close to anyone	0.25	0.74	0.48	0.09	.17	-0.08
	interests/ideas not shared	0.25	0.6	0.48	0.07	.01	0.07
	close to people	0.25	0.65	0.48	0.08	.18	-0.10
	left out	0.25	0.72	0.48	0.09	.13	-0.05
	relationships not meaningful	0.25	0.72	0.48	0.09	.17	-0.09
	no one really knew you	0.25	0.73	0.48	0.09	.05	0.03
	isolated from others	0.25	0.73	0.48	0.09	.12	-0.03
	could find companionship whenever	0.25	0.56	0.48	0.07	.12	-0.05
	there were people who understood you	0.25	0.66	0.48	0.08	.16	-0.08
	people around, but not with you	0.25	0.49	0.48	0.06	.07	-0.01
	there were people to	0.25	0.74	0.48	0.09	.14	-0.05

	talk to						
	there were people to turn to	0.25	0.74	0.48	0.09	.17	-0.09
spent w/ sig. other	in tune	0.37	0.57	0.48	0.10	.15	-0.05
	lacked companionship	0.37	0.64	0.48	0.11	.41	-0.30
	no one to turn to	0.37	0.73	0.48	0.13	.23	-0.10
	part of group	0.37	0.52	0.48	0.09	.12	-0.03
	lots in common	0.37	0.69	0.48	0.12	.19	-0.06
	not close to anyone	0.37	0.74	0.48	0.13	.31	-0.18
	interests/ideas not shared	0.37	0.6	0.48	0.11	.06	0.04
	close to people	0.37	0.65	0.48	0.12	.23	-0.11
	left out	0.37	0.72	0.48	0.13	.11	0.01
	relationships not meaningful	0.37	0.72	0.48	0.13	.17	-0.04
	no one really knew you	0.37	0.73	0.48	0.13	.16	-0.03
	isolated from others	0.37	0.73	0.48	0.13	.17	-0.04
	could find companionship whenever	0.37	0.56	0.48	0.10	.18	-0.08
	there were people who understood you	0.37	0.66	0.48	0.12	.19	-0.07
	people around, but not with you	0.37	0.49	0.48	0.09	.06	0.03
	there were people to talk to	0.37	0.74	0.48	0.13	.19	-0.05
	there were people to turn to	0.37	0.74	0.48	0.13	.17	-0.04
spent alone	in tune	0.79	0.57	0.48	0.22	.18	0.04
	lacked companionship	0.79	0.64	0.48	0.24	.17	0.08
	no one to turn to	0.79	0.73	0.48	0.28	.14	0.14
	part of group	0.79	0.52	0.48	0.20	.10	0.10
	lots in common	0.79	0.69	0.48	0.26	.15	0.11
	not close to anyone	0.79	0.74	0.48	0.28	.25	0.03
	interests/ideas not shared	0.79	0.6	0.48	0.23	.19	0.04
	close to people	0.79	0.65	0.48	0.25	.10	0.15
	left out	0.79	0.72	0.48	0.27	.18	0.09
	relationships not meaningful	0.79	0.72	0.48	0.27	.10	0.17
	no one really knew you	0.79	0.73	0.48	0.28	.08	0.19
	isolated from others	0.79	0.73	0.48	0.28	.21	0.07
	could find companionship whenever	0.79	0.56	0.48	0.21	.07	0.15
	there were people who understood you	0.79	0.66	0.48	0.25	.06	0.19
	people around, but not with you	0.79	0.49	0.48	0.19	.17	0.01

	there were people to talk to	0.79	0.74	0.48	0.28	.16	0.12
	there were people to turn to	0.79	0.74	0.48	0.28	.15	0.13

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